

27

**STANDING COMMITTEE ON
COAL, MINES AND STEEL (2025-2026)**

EIGHTEENTH LOK SABHA

MINISTRY OF COAL

**'INFRASTRUCTURE DEVELOPMENT TO AUGMENT
WASHED COAL PRODUCTION'**

TWENTY SEVENTH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI
JULY, 2026/SRAVANA 1948 (Saka)**

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Presented to Lok Sabha on 29.07.2026

Laid in Rajya Sabha on 29.07.2026



LOK SABHA SECRETARIAT

NEW DELHI

JULY, 2026/SRAVANA 1948 (Saka)

CM&S No. 201

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**COMPOSITION OF THE STANDING COMMITTEE ON COAL, MINES AND
STEEL(2025-2026)**

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29. Shri Sajjad Ahmad Kichloo#
30. Dr. Sasmit Patra@

*nominated w.e.f. 16.10.2025 vide Bulletin – Part-II, Para No. 3329 dated 17.10.2025

nominated w.e.f. 05.12.2025 vide Bulletin – Part-II, Para No. 3767 dated 08.12.2025

@ nominated w.e.f. 03.06.2026 vide Bulletin – Part-II, Para No. 5267 dated 04.06.2026

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INTRODUCTION

I, the Chairperson, Standing Committee on Coal, Mines and Steel (2025-26) having been authorized by the Committee to submit the Report on their behalf, present this Twenty-seventh Report (Eighteenth Lok Sabha) on the subject 'Infrastructure Development to Augment Washed Coal Production' relating to the Ministry of Coal.

2. The Committee selected the subject for detailed examination during 2025-26. The Committee was briefed by the representatives of the Ministry of Coal on 08.12.2025. The Committee, thereafter, undertook oral evidence of the Ministry of Coal on 02.03.2026. Based on the oral and written testimonies submitted to the Committee, a report on the subject was prepared.

3. The Report was considered and adopted by the Committee at their sitting held on 27.07.2026. The Minutes of the sittings of the Committee are appended to the Report.

4. The Committee wish to express their gratitude to the Ministry of Coal for placing material information as well as tendering evidence and views before the Committee.

5. The Committee place on record their profound appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For the facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

**NEW DELHI;
27 July, 2026
5 Sravana, 1948(Saka)**

**ANURAG SINGH THAKUR
Chairperson
Standing Committee on Coal,
Mines and Steel**

CHAPTER I

INTRODUCTORY

A. COAL SECTOR IN INDIA

The Indian coal sector is the foundation of the country's energy security accounting for over half of its commercial primary energy needs and the majority of its electricity generation. The domestic coal industry under the Ministry of Coal has rapidly expanded production to record highs, simultaneously propelling socioeconomic growth.

1.2 With the sustained and coordinated efforts across the coal sector and the invaluable contribution of all stakeholders, the country has successfully achieved the landmark of 1 billion tonne (BT) coal production on 20.03.2026 for the second year in a row. This significant milestone underscores India's growing self-reliance in the energy sector and its commitment to ensuring uninterrupted fuel supply to key industries. This enhanced and sustained coal production level has enabled the country to effectively meet rising energy demands while supporting the power sector in maintaining record high coal stock levels at coal based thermal power plants.

1.3 India's coal sector is undergoing a structural transformation aimed at strengthening energy security, reducing import dependence, and improving environmental performance. With domestic coal production projected to rise significantly by FY 2030, the availability of quality coal—particularly washed coal—has become critical for power generation, steel production, cement manufacturing, sponge iron units, and emerging coal gasification projects. Ensuring a reliable supply of beneficiated coal is central to sustaining industrial growth while aligning with national priorities of efficiency, self-reliance, and cleaner energy use.

Domestic Coal Production - Coking and Non-Coking Coal

1.4 Through sustained programme of investment and greater thrust on application of modern technologies, production of coal has raised to 997.83 million tonnes in 2023-24. The Production of coal during 2024-25 was 1047.523 MT with a positive growth of 4.98%.

1.5 The Ministry of Coal governs the extraction and distribution of two primary categories of coal in the country: coking coal (used primarily in steel and metallurgical industries) and non-coking coal (used mainly as thermal coal for power generation). The domestic production of coal in India is dominated by non-coking coal and the reserves of coking coal are limited.

1.6 The gradation of non-coking coal is based on Gross Calorific Value (GCV), that of coking coal on ash content and that of semi coking /weakly coking coal is based on ash plus moisture content. Coking coal when heated in the absence of air, forms a strong, porous, coherent mass free from volatiles- called COKE. Coke is an input material in steel manufacturing, apart from iron ore. In steel making, functions of coke are as fuel and as Reducing agent. As fuel, it burns to generate high temperature to melt iron ore. i.e. Supplying heat to the blast furnace and has Thermal role. As reducing agent, it reacts with oxygen in iron ore to remove it, producing molten iron. i.e. reduction of iron oxide into molten iron and has Chemical role.

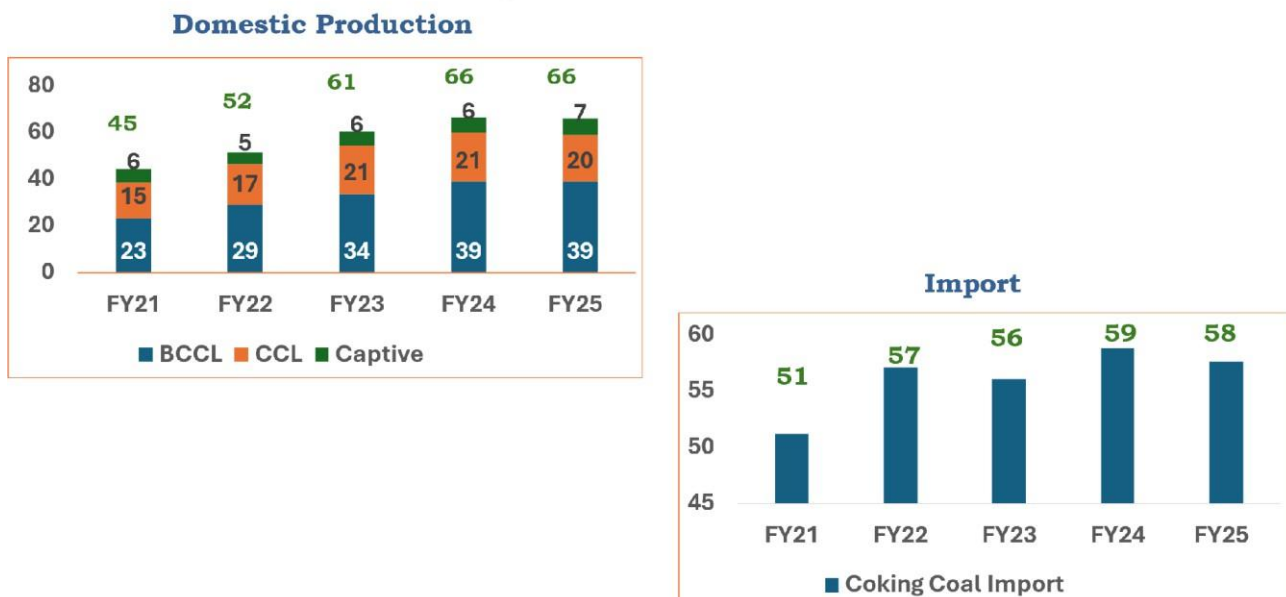
1.7 Non-coking coal has only thermal role. It does not find use in coke making/ steel making because when heated, it converts into loose, powdery, incoherent mass, with no caking properties, so not suitable for use as coke. The usage of non-coking coal are in:

1. Power generation
2. Cement industry

3. Spong iron (DRI)

Coking Coal Domestic Production and Imports

Fig in Mn Te



Quality Challenges of Indian Coal

1.8 Indian coal faces several challenges in both coking and non-coking categories. In the case of coking coal, Indian coal generally has poor characteristics, including high NGM, low CSR (less than 55), high ash content (greater than 18%), and high volatile matter. Around 82 per cent of Indian coking coal is of low grade, primarily belonging to WIV and WV categories. Further, for use in blast furnaces for steel making, domestic coking coal cannot be used independently and has to be blended with imported coal, as the permissible ash content is limited to 18 per cent.

1.9 With regard to non-coking coal, the high ash content results in lower Gross Calorific Value (GCV), which in turn reduces boiler efficiency. It also leads to higher levels of pollution in the form of particulate matter and fly ash. In addition, higher ash content increases ash disposal and handling requirements.

Challenges of Indian Coal

Coking Coal

-  High ash content (~24-44%) - not suitable for steel making. Washing can bring ash level to ~18% that enables blending up to 10% with imported coal.
-  High ash lowers blast-furnace efficiency.
-  Poor Washability Characteristics.
-  Unwashed coal requires wasteful transportation, consumes unnecessary energy and increases process waste generation.

Non-Coking Coal

-  High Ash content leading to wasteful transportation.
-  Less boiler efficiency due to impurities , lower calorific value.
-  Higher Emissions: Higher ash.
-  Increased Equipment wear and tear.
-  Lower energy output per ton.

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1.10 Giving details about the coal grades within each coal producing PSUs and its subsidiaries, the Ministry, in a written reply furnished as under:

“Indian coking coal is characterized by high inherent ash and poor washability, particularly in Jharia and Bokaro coalfields (within mining areas of BCCL and CCL) due to high near-gravity material and intimate dirt coal intergrowth.

The declared coal grade distribution across subsidiaries is generally as follows:

BCCL: Predominantly coking coal with ash content ranging from Washery Grade II-Washery Grade V, particularly in Jharia coalfield. Non-coking coal forms a small residual share, primarily in lower G-grades.

CCL: CCL has a mixed coal basket, with a significant share of coking coal along with non-coking grades. Coking coal production is concentrated in W-II, W-III and W-IV, while non-coking output is largely in G7 to G10 grades.

SECL: SECL is India's largest non-coking coal producer, with declared grades heavily concentrated in G6 to G10, especially G8, G9 and G10.

MCL: MCL's declared production is overwhelmingly non-coking coal, dominated by G9 to G12 grades, with G10 and G11 forming the largest share.

Washability difficulties are widespread in Indian coalfields and inherently limits clean coal recovery. Higher the ash content, lower the yield of washing. No standardized yield is possible to set beforehand; it is rather dependent upon the type of coal, ash content, washing technology and efficiency of equipment.

Organic efficiency of not less than 95% is envisaged for the recovery of washed coal post beneficiation.”

1.11 During the sitting of the Committee, the Ministry of Coal, stated the position as under:

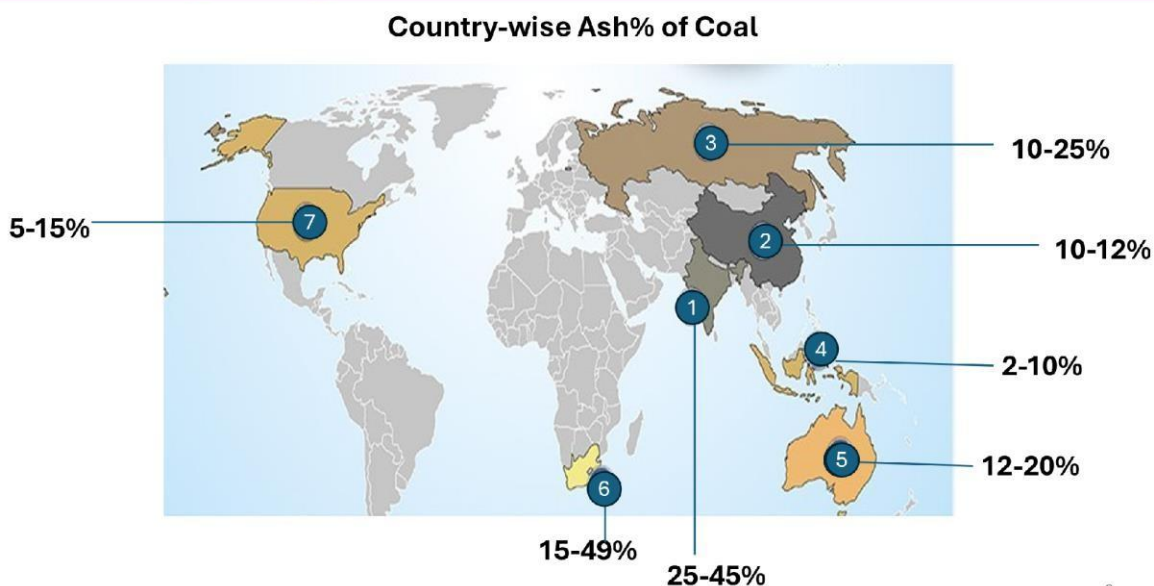
“ the defining challenge of the Indian coal ecosystem is the inherently high ash content of our domestic reserves. This has multifarious impacts in terms of the combustion efficiency, in terms of the emissions, in terms of the transportation burden, and also limiting the suitability of coking coal for steel making. In contrast, if we see the ash content of coal in the major producing countries like Australia, the ash content is substantially lower, which explains the high quantum of imports. So, this places a greater responsibility on us to enhance the beneficiation ecosystem through policy and through operations both. Coal washing, therefore, becomes not just a technical activity but an essential national priority as well.”

Quality of Indian Coal *vis-à-vis* Global Coal

1.12 Ash content of coal produced in the country is generally 25 to 45 % whereas average ash content of imported coal varies from 10 to 20 %. Indian Coal has comparatively higher ash content than imported coal due to drift theory of formation of coal deposits in India.

1.13 As informed by the Ministry of Coal, the country-wise ash percentage of coal is as under:

Global Quality of Coal



B. BENEFICIATION OF COAL OR COAL WASHING

1.14 Domestic reserves of coking coal are limited and are generally of lower quality, necessitating beneficiation at washeries to upgrade raw coking coal to the standards required by steel plants.

1.15 During a presentation before the Committee, the Ministry of Coal informed that the domestic coking coal can't be directly used for Coke making. It forms coherent beads instead of coherent mass when heated. It converts to Weak Coke due to weak caking properties and not strong enough to be directly fed into blast furnace. High ash (25 to 45%), Low Crucible Swelling Index (CSN), Mineral Matter Reflectance (MMR), etc make domestic coking coal weakly coking. The solution is when domestic coking coal is washed and then blended with imported coking coal (having strong caking properties) to attain the desired caking properties for converting to Coke. This is the reason India continues to import coking coal. Further, regarding percentage of imported coal that is blended with domestic coal, the Ministry has informed that typically, imported coal constitutes about 85 to 90% of the blended mix, average percentage being around 90%.

The percentage ash in domestic washed coal is about 18%, and in imported coal it is around 12%, and in blending mix about 11 to 13%

1.16 During their presentation before the Committee, the Ministry of Coal highlighted the need for coal washing and its benefits as under:-

Need for Coal Washing

Reduces coal impurities

- ❖ Improves GCV of Coal
- ❖ More uniform quality
- ❖ Increase blending with imported coal (coking + non-coking)
- ❖ Reduces cost of transportation
- ❖ High Grade non-coking coal- utilized as PCI (Pulverized Coal Injection)
- ❖ Reduces particulate emissions (fly ash/slag)
- ❖ Possibility of tapping export potential
- ❖ Use in coal gasification

8

Benefits of Coal Washing

Reduces coal impurities and brings down ash content

- ❖ Improves heat content of coal
- ❖ Enables blending of domestic coal with imported coal
- ❖ Reduces cost of transportation
- ❖ Use in coal gasification
- ❖ High Grade Non-coking Coal may be utilized as PCI (Pulverized Coal Injection)
- ❖ Substitution in Imported coal-based plants (ICBs)
- ❖ Improves efficiency of blast-furnace and boilers
- ❖ Reduces particulate emissions (fly ash/slag)
- ❖ Possibility of tapping export potential

8

Coal Washing Technologies

1.17 Coal washing or beneficiation is a process of mechanical separation of impurities (ash) from coal, making it suitable for particular use. During beneficiation of raw coal, four products viz. washed coal, Middling/washed power coal, fines/slurry and rejects are produced based on the technology employed for beneficiation. In Indian context, coking coal washeries are three product washeries producing clean coal, middling and rejects whereas non-coking coal washeries are normally two products producing washed (power grade) coal and rejects.

1.18 The physical separation process is the most common method for washing coal particles due to its efficiency and optimal yield attainable at a wide density cut-point range. Within this, dense media separation technologies are mostly deployed world-wide in wet beneficiation methods. Gravity separation using air as media are commonly used in dry separation methods.

1.19 The dry-beneficiation methods are cost effective compared to dense media separation methods. However, globally, these were considered to be much inferior to wet processing methods but are better than simple de-shaling of coal.

1.20 Over the years, due to growing concerns on water availability and climate change, there is an emerging trend to adopt dry separation technologies in certain regions supported by further & innovation and development. The particle separation efficiency difference between wet and dry methods has also reduced substantially and so the adoption.

i) Wet Beneficiation technologies :

1.21 Under the wet beneficiation process, jigs and dense media bath technologies are commonly in practice for washing coarse coal (exceeding 10mm) and medium coal (1-

10mm).

i) Jigs (Pulsating water as media (Batac/ Baum)

ii) Dense –media separation

a. Dense/Heavy Media Vessel or Baths,

b. Dense/Heavy Media cyclone

c. Combination of above)

ii) Dry beneficiation technologies:

1.22 Dry separation techniques are based on exploiting different aspects of coal particle properties such as coal density, particle shape, friction, electrostatics, and magnetism.

Major dry beneficiation technologies deployed across countries are:

1. Air dense media fluidized bed separation (ADMFB)

2. Fluidized bed separation

3. Compound dry separation — Air Jigs, concentration air tables, FGX separator, TFX-8 AIR jigs, Pneumatic sorter etc.

1.23 These dry beneficiation technologies are used for beneficiation of coarse and medium coal particle sizes. Out of these, compound dry separators are the dominant ones which mainly use the particle friction, shape and density of coal particles.

Beneficiation Technologies Abroad

1.24 Globally, there is lack of uniformity in the coal characteristics especially the quality of input coal and the washability characteristics due to the formation of coal. Hence, for the determination of technology and process design of coal beneficiation, these are factored. Coal washing technologies used in major coal producing countries across the globe are as under:

“Technology of washing – Global Scenario

Sl no.	Country	Technology used for Beneficiation	
		Coarse Coal & Small Coal	Fines
1	China	• Jigs (100-50) • Dense Medium Separators (Drewboy, vertical lifting wheel separator) • Two product HM Cyclone (50-13) • Three product HM Cyclone (50-13)	• Flotation (-0.5) • Column Flotation for very fine coal
2	USA	• Heavy Medium Vessel (100-10) • Heavy Medium cyclone (10-1) • Water Only Cyclone, Spirals or combination of both (1-0.15)	Froth flotation after de-sliming at ~35/40 micron
3	Australia	• Dense Medium Cyclones • Jigs, Heavy Medium Vessels	• Froth flotation (-0.5) • Combination of spirals (2-0.3) and Jameson or Microcel Technology (-0.3)
4	Russia	• HM Bath and cyclone • Jig	• Froth flotation • Water Only Cyclones • Spirals
5	South Africa	• HM Cyclones • Wemco drum, Drewboy bath • Jigs • Small diameter cyclones (coal size 8-0.8mm)	• Spirals • Froth flotation • TBS/Spirals
6	Poland	• HM separators • Jigs • HM Cyclone	• Froth flotation • Spirals
7	Germany	• Jig	• Flotation

Source: Coal Processing and Utilization; D.V.Subba Rao & T.Gouricharan”

Coal Benefaction Technologies used in India

1.25 Indian coal washeries employ a multi-stage beneficiation approach based on size-wise separation combining conventional and advanced technologies to handle high-ash

raw coal.

Technology used for Beneficiation	
Coarse Coal & Small Coal	Fines
• Jig • HM Separation (Bath/ Drum/ Cyclone or combination thereof) • Spiral/ Teetered Bed Separator/Reflux Classifier technology	• Flotation

1.26 The Committee were apprised that dry beneficiation technology which avoids water consumption and effluent challenges of wet washing is at the proposal or R&D stage in India and a single 2.0 MTPA plant is being conceptualised at ECL's Chitra mine. Meanwhile, China and Indonesia operate this technology at large scale. Given water scarcity in coalfield areas and environmental concerns around effluent treatment, the Committee desired to be apprised regarding the Ministry's concrete roadmap for scaled deployment of dry beneficiation and the reasons for it not being incorporated into more of the eight new washery projects now being tendered. To this, the Ministry has stated as under:

"The dry beneficiation technologies available worldwide are mainly Air Jigs, Air Table and X-ray sorter. Apart from Air jigs, none of the dry beneficiation technologies is commercially proven on Indian coals. Also, the maximum capacity of the Air Jig available at commercial scale is of 50 tph. Globally, dry beneficiation technology is generally used in beneficiation of non-coking coal. The capacity of coming projects of non-coking coal washeries are having capacity greater than 5.0 MTPA, hence proposing dry beneficiation technologies which are not commercially proven on Indian coal, is not feasible. Therefore, scaling up projects of such technologies are being taken up under R&D route."

1.27 The Committee were informed that the Ministry plans to increase domestic coking

coal blending from 10% to 30% through stamp charging technology and desired the Ministry to furnish information regarding the capacity implications for steel mills to adopt this technology ; number of PSUs and private steel mills who have commissioned or committed to stamp-charged coke batteries by 2030; the projected reduction in coking coal import dependence and cost savings that will accrue to the steel sector under the 30% stamp-charged blending target ; the current status of dry washing pilot projects in India since dry washing technology is mentioned as an alternative to wet washing. In its reply, the Ministry has stated as under:

“The Ministry plans to increase domestic coking coal blending from 10% to 30% by FY 2030 through wider adoption of stamp-charging technology.

Status of Stamp Charging Technology:

Existing Capacity: 6.55 MTPA (TATA Steel)

Planned Capacity: ~24 MTPA (SAIL & AMNS) till 2030

Adoption of stamp-charging requires steel mills to commission new or retrofit existing batteries, with each battery typically adding ~0.5–1 MTPA of coke capacity. Under the 30% blending target, domestic coking coal utilisation will increase significantly, reducing import dependence by roughly ~15-18 MT per year, based on current demand, and yielding potential cost savings of ₹5,500–9,700 crore (depending on international coal prices and domestic supply costs).

Current status of dry washing projects of CIL is given below.

- CIL has envisaged to set up a 2.0 MTY dry deshaling plant at Chitra mine of ECL.
- Possibility of R&D pilot project on dry deshaling technology viz. Air Fluidized vibrating Deck separator, Air dense medium fluidized bed separator and X-ray sorter is being explored with NML, IIT KGP and CIMFR, Dhanbad respectively.
- A dry washing plant is being considered and PFR & related documents are being prepared by CMPDI for installing dry washing technology washery in BCCL.”

□ (Reply to Questionnaire no. 8 by Chairperson Briefing)

Global Benchmarks and Best Practices

1.28 A number of coal producing countries have been involved in coal-washing practices to meet the benchmarks standards for exporting thermal coal and to obtain desired quality (GCV) and characteristics (Ash %). The thermal coal quality standards

of some countries are as under:

Country-wise ash content and energy Content of thermal coal

Coal benchmarks	Energy content (kcal)	Ash Content (%)
Australian thermal export coal benchmark	6000	12-14%
Australian thermal export coal secondary benchmark	5500	20%
Indonesian thermal export coal	4500-5000	2-10%
South African thermal export coal	6000	15%
Russian thermal export coal	6500	10-25%
China domestic thermal coal	4000-5500	20-40%
Indian domestic thermal coal	4400	25-45%

1.29 It can be inferred that Australian coal has high energy content and thus require lesser quantity to produce similar unit of electricity, which is the reason Australia stands second in exporting thermal coal after Indonesia, which provide better environmental outcome as a result of lesser ash content in coal. Since, countries seeking to limit the externalities from coal fired power plants, aggressively banned imports of high ash and sulphur containing coal which necessitates the washing of coal for the export dependent countries.

1.30 Interestingly, South African thermal coal reserves contain high ash content, but still majority of coal is processed to obtain the export grade coal at much lower

yield and the intermediate product so-called middlings are utilized for domestic thermal power generation.

1.31 While the countries like China and USA having significant coal washing capacity has not much to do with the exports but the pricing, environmental targets and efficiency which drives the coal washing chain. The scale of coal washing deployment in some countries is steered by the energy and environmental policy regulations for the operations of thermal coal, while some countries engaged in coal washing practices to maintain the competitive share in international export markets.

1.32 Regarding global benchmarks for coal washery performance parameters and international technology partnerships, the Ministry has stated as under:

“Globally, well-performing coal washeries operate at high-capacity utilization with efficient recovery, competitive operating costs and low water consumption through advanced beneficiation and recycling systems, as seen in countries such as Australia, South Africa and China. Performance varies across washeries due to coal quality and legacy infrastructure. However, new and upcoming washeries are designed with modern technologies, higher recovery and water-efficient systems to align with global best practices.”

1.33 Further, regarding the timeline for completion of the comparative benchmarking study of Indian washeries vis-à-vis global leaders such as Australia, South Africa and China, and the status of technology-transfer, twinning or joint R&D programmes initiated on the basis of such benchmarking, the Ministry has stated as under:

“The Ministry of Coal is undertaking a comparative assessment of coal washery performance parameters such as capacity utilisation, recovery yield, operating efficiency and water consumption with international practices in countries such as Australia, South Africa and China. The study is aimed at identifying best practices and potential areas for technological improvement in the Indian coal beneficiation ecosystem. Based on the findings of such benchmarking, the Ministry, in coordination with coal companies and research institutions, will explore suitable avenues for technology adoption, collaborative research and knowledge sharing. At present, the assessment is under progress and further initiatives, including possible technology partnerships or joint R&D efforts, will be considered based on the outcomes of this exercise.

No specific timeline has been finalized at this stage.”

1.34 In the context of South Africa using "Middlings Strategy" for its non-coking coal washeries, the Committee desired to know whether there is any proposal to incentivize power plants to retrofit boilers to accept washery middlings, thereby subsidizing the production of high-grade washed coal.

In a written reply, the Ministry submitted as under:

“The Ministry will examine international practices, including South Africa’s middlings-based strategy, through technical studies and benchmarking to assess their applicability for new non-coking coal washeries in India. The feasibility of utilising washery middlings in power generation, including blending and boiler performance, will also be examined under Indian conditions. At present, there is no proposal to incentivize or mandate retrofitting of power plant boilers for middlings. Any such measures, if found viable, would be considered in consultation with the Ministry of Power and other stakeholders”.

1.35 On being further queried about the status of such a study and the timeline for a policy decision in this regard, it was stated:

“The Ministry of Coal has taken note of international practices, including the model adopted by South Africa, wherein washery middlings are utilized for power generation while higher-grade washed coal is supplied for premium markets. The Ministry has formed a committee under Additional Secretary (Coal) for preparing a strategy to augment washed coal production and washery infrastructure in the country. The outcome of this committee will inform further policy consideration, and any decision will be taken thereafter based on detailed assessment and stakeholder inputs. A stakeholder consultation will be organized by Ministry of Coal with washery operators in country.

CHAPTER II

COAL WASHING ECOSYSTEM IN THE COUNTRY

The Government has adopted a comprehensive strategy focused on expanding domestic coal production, augmenting washing capacity, modernizing existing washeries, and promoting cleaner coal utilization through policy and technological interventions. This integrated approach ensures that rising raw coal output is supported by adequate beneficiation infrastructure and aligns with national goals of Aatmanirbharta in coal and steel.

I. MAJOR POLICY MEASURES TO STRENGTHEN COAL BENEFICIATION IN INDIA

(a) Mission Coking Coal

2.2 The Ministry of Coal launched Mission Coking Coal in FY22 to meet the domestic coking coal demand projected in National Steel Policy 2017. To reduce the import of Coking Coal, the blending of coking coal by the steel sector will be increased from 10-12% at present to 30-35%. The transformative measures taken by the Ministry of Coal under '*AatmaNirbhar Bharat*' initiative of the Prime Minister, domestic raw Coking Coal production is likely to reach 140 MT by 2030, yielding after washing about 48 MT of usable Coking Coal.

2.3 Ministry of Coal and Ministry of Steel have planned to reduce the burden of import bill of coal under the Mission Coking Coal by increasing domestic coal production from existing mines and setting up of new washeries.

2.4 Regarding the various components of Mission Coking Coal and the action plan to achieve its objectives, the Ministry of Coal has stated as under:

“Mission Coking Coal, launched by the Ministry of Coal in August 2021, aims to augment domestic raw coking coal production to 140 MT, increase domestic coal blending from 10% to 30%, increase washing capacity from present 30 MTPA to 58 MTPA and explore more coking coal blocks for auction.

Action plan are as follows:

To augment Raw Coking Coal production to 140 MT by FY 2030:

From existing mines of CIL to 80 MT

From new mines of CIL – 25 MT

Operationalization of auctioned coking coal blocks- 25 MT

Increase production from SAIL/TATA coal blocks- 10 MT

To increase Washing Capacity to 58 MTPA from present 30 MTPA:

8 coking coal washeries having capacity 21.5 MTY by FY 2030.

3 old coking coal washeries for revival by FY 2030

To implement Stamp Charging Technology to increase domestic coal blending from 10% to 30% by steel industry:

Existing Capacity: 6.55 MTPA (TATA Steel)

Planned Capacity: ~24 MTPA (SAIL & AMNS) till 2030.”

b) Coal SETU

2.5 The Coal SETU has been approved by Cabinet Committee on Economic Affairs (CCEA) on 12.12.2025. Policy guidelines have been issued on 19.12.2025. Key features Coal SETU are as under:

- Coal linkage for own consumption, export of coal, or any other purpose (including coal washing) except resale in the country.
- Coal linkage holders eligible to export coal upto 50% of their coal linkage quantity.
- Coal linkage holders may flexibly utilize the coal obtained under this window as per their requirement amongst its Group companies.
- Coking coal shall not be offered under this window.

2.6 The Press Release of the Cabinet Committee of Economic Affairs, dated 12 December 2025 gives details about Coal SETU as under:

“The existing policy for auction of coal linkages for the NRS provides for allocation of all fresh coal linkages to NRS viz. Cement, Steel (Coking), Sponge Iron, Aluminium, and Others [excluding Fertilizer (Urea)] including their Captive Power

Plants (CPPs) to be auction based. As per the present policy of NRS Linkage, the sub-sectors are for specified end users only.

Looking at the current & future market dynamics and for the purpose of ease of doing business and for accelerated utilization of existing coal reserves and reduce dependence on imported coal for meeting country's energy requirement, there was a need to have a fresh look at the current arrangements of coal supplies to the NRS, and extend the linkages in NRS to coal consumers without any end use restrictions. In line with the opening of the coal sector for commercial mining, which allowed allocation of coal blocks without any end use restrictions, this policy for auction of coal linkages for NRS has been modified for allocation of coal linkages on auction basis on long-term for any industrial use and export by adding another window/sub-sector. Traders shall not be allowed to participate in the proposed window.

The present auction of coal linkages for the specified end-user sub-sectors in NRS (Non-Regulated Sector) shall continue. The specified end-user (s), can also participate in this window.

The coal linkage holders may flexibly utilize the coal obtained under this window as per their requirement amongst its Group companies. Considering the demand for washed coal, which would increase in future, the coal linkages to the Washery operators will result in increased availability of washed coal in the country and consequently reduce imports. Further, the washed coal will also find takers outside the country and therefore, the washed coal may also be used for the purpose of export. “

2.7 Further, the Ministry has informed regarding the policy (Coal SETU) for providing coal linkages to non-coking coal washeries as under:

‘Steel using Coking coal through WDO route’ is an existing sub-sector under the NRS linkage auctions for long-term coal linkage to the Steel Sector. In WDO model, there is a guarantee of long-term coal supply by Coal India Limited to washeries matching their annual capacity, with defined grade specifications. Historically, inadequate or variable linkage has caused low utilization and affected washery economics.”

(c) National Steel Policy (NSP)

2.8 With a focus on enhancing domestic consumption, high quality steel production and making the sector globally competitive, the National Steel Policy was launched by the Government of India. One of the key features of NSP 2017 is domestic availability of coking coal. India's National Steel Policy 2017 envisions creating a globally competitive, technologically advanced, and self-sufficient steel industry. It targets reaching a crude steel production capacity of 300 million tonnes (MT) and increasing per capita finished

steel consumption to 160 kg by 2030-2031. The National Steel Policy projects the demand of Coking coal, Pulverized Coal Injection (PCI) Coal and coal for Direct Reduced Iron (DRI) by FY 2030.

2.9 During the sitting of the Committee, the representatives of the Ministry deposed as under

“We have got the National Steel Policy of 2017 in place in which a lot of issues related to coking coal have been deliberated. The notice has been brought in that we need to reduce our dependence on coking coal.....the intent is to shift from blast furnace route to electric arc furnace route. Nearly, 43 per cent of steel production is through the blast furnace route, and remaining is through the other route, primarily the electric arc furnace route and induction furnace route.”

Demand- Supply Projection

As per National Steel Policy, 2017; Projected steel making capacity of 300 MTPA by 2030

Resource demand for steel making by FY 2030

❖ Coking coal (10-11 % Ash)	-161 MT
❖ Domestic Coal blending with imported coal (present)	-10%
❖ Proposed to increase to 30% through Stamp Charging technology	- 30%
❖ Washed Coal Required	- 48 MT
❖ Raw Coking Coal production	- 140 MT
❖ Washing Capacity	- 58 MT
❖ Washed Coal Supply	- 23 MT

9

2.10 Though the projected 300 MTPA steel capacity by FY 2030 leads to a substantial rise in coking coal demand, the Ministry of Coal, during the examination of the subject has acknowledged that even with expanded washery infrastructure, domestic washed coking coal will only partially meet demand with the balance met through imports and provided a year-by-year chart as below:

Indicative Year-wise Projections (MT):

Year	Demand	Domestic Supply (washed coking coal)	Imports
2024-25	63	06	57
2025-26	70	07	63
2026-27	100	10	90
2027-28	120	12	108
2028-29	140	14	126
2029-30	161	23	138

Assumptions:

- Blending ratio of domestic washed coking coal increases from ~10–12% to 15% by FY 2030.
- Stamp-charging capacity addition, enabling higher domestic coal usage.”

2.11 When enquired about the assessed gap between projected demand for washed coking coal and the likely domestic availability over the next five years, the Ministry in its reply has stated as under:

“Estimated washed coking coal requirement as per National Steel policy 2017 and Mission coking coal:

Particulars	
Total coking coal requirement in FY 2030	161 million tonnes (MT)
Washed coking coal requirement, (Ash content max. 18%), considering indigenous coking coal in blend @ 30% in case of stamp charged battery.	48 MT
Domestic washed coking coal production by FY2030	23 MT
Gap in demand and supply	25 MT

2.12 The Committee have observed that the Ministry's own projections show that the steel sector will require 48 MT of washed coking coal by FY 2030 under a 30% blending scenario, yet the total projected washed coal supply from all CIL

washeries is only 23 MT, a gap of 25 MT. On a specific query regarding this Demand-Supply Gap and the concrete plan to bridge the same, it was submitted as below:

“The matter is also being examined in consultation with the Ministry of Steel to align coal beneficiation capacity with the projected requirements of the steel sector. These measures are expected to progressively reduce the demand–supply gap. However, given the limited availability of high-grade coking coal in the country, imports may continue to supplement domestic supply to meet the requirements of the steel industry.”

2.13 Further, in view of the Ministry's strategy emphasize on "Atmanirbharta in coal and steel", the Committee desired to know the policy measures which will ensure steelmakers prioritize domestic washed coal over imports. It has been replied, *inter-alia*, as under:

“Under the Government's Atmanirbhar Bharat vision in coal and steel, the Ministry of Coal, in coordination with the Ministry of Steel, has set a target to increase the share of domestic coking coal usage in steelmaking from the present level of around 10 per cent to about 30 per cent by FY 2030 through improved beneficiation and blending. To achieve this, policy measures include expansion and modernization of coal washeries to improve yield and quality, monetization and development of coking coal blocks, long-term supply linkages of washed coking coal to steel plants, promotion of advanced coke-making technologies such as stamp charging, and facilitation of optimal blending norms. These measures are aimed at ensuring that domestic washed coking coal is economically attractive and technically suitable, thereby encouraging steelmakers to progressively substitute imports with domestic coal.

Availability of domestic washed coking coal will be able to meet the demand of steel sector partially. CIL has offered 17.24 MT coking coal from 32 sources in the scheduled linkage auction for Steel (Coking) Sub-Sector Under Tranche IX of NRS Linkage Auction”.

2.14 The Committee inquired regarding the availability of abundant, low cost domestic washed coking to improve the competitiveness of Indian steel in domestic and export markets vis-à-vis Chinese and Japanese competitors. The Committee also desired to know the quantified target for domestic coking coal's share in India's steel mills by FY

2030, and the policy measures to incentivise steelmakers to prioritise domestic washed coal over imports. To this, the Ministry has stated as under:

“Availability of abundant, lower-cost domestic washed coking coal reduces steel production costs by cutting dependence on expensive imported coal, lowering freight and foreign exchange outgo, and insulating producers from global price volatility. Assured supply of quality-washed coal also improves coke quality and blast furnace efficiency, reducing coke consumption and energy costs. Together, these factors narrow the cost gap with Chinese and Japanese steelmakers, enabling Indian steel to be more price-competitive in domestic markets and better positioned in exports.

Under the Government’s Atmanirbhar Bharat vision in coal and steel, the Ministry of Coal, in coordination with the Ministry of Steel, has set a target to increase the share of domestic coking coal usage in steelmaking from the present level of around 10 per cent to about 30 per cent by FY 2030 through improved beneficiation and blending. To achieve this, policy measures include expansion and modernization of coal washeries to improve yield and quality, monetization and development of coking coal blocks, long-term supply linkages of washed coking coal to steel plants, promotion of advanced coke-making technologies such as stamp charging, and facilitation of optimal blending norms. These measures are aimed at ensuring that domestic washed coking coal is economically attractive and technically suitable, thereby encouraging steelmakers to progressively substitute imports with domestic coal.

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II. EXISTING INFRASTRUCTURE FOR COAL WASHING IN THE COUNTRY

2.15 The Government has adopted a comprehensive strategy focused on expanding domestic coal production, augmenting washing capacity, modernizing existing washeries, and promoting cleaner coal utilization through policy and technological interventions. This integrated approach ensures that rising raw coal output is supported by adequate beneficiation infrastructure and aligns with national goals of Aatmanirbharta in coal and steel.

2.16 Ministry of Coal is working with a vision to make Bharat Aatmanirbhar by ensuring the accelerated, efficient, sustainable use of coal, and enhancing its export potential. In

its ongoing efforts to strengthen the coal sector and bring India closer to the vision of Aatmanirbhar Bharat, the Ministry of Coal has undertaken a series of reforms for overall development of coal sector. These key functions are exercised through its public sector undertakings, namely Coal India Limited (CIL), NLC India Limited (NLCIL) and Singareni Collieries Company Limited (SCCL), a joint sector undertaking of Government of Telangana and Government of India and subsidiaries.

2.17 Further, CIL has eleven fully owned subsidiary companies viz. i. Eastern Coalfields Limited (ECL), ii. Bharat Coking Coal Limited (BCCL), iii. Central Coalfields Limited (CCL), iv. Western Coalfields Limited (WCL), v. South Eastern Coalfields Limited (SECL), vi. Northern Coalfields Limited (NCL), vii. Mahanadi Coalfields Limited (MCL), viii. Central Mine Planning & Design Institute Limited (CMPDIL), ix. CIL Navikarniya Urja Limited x. CIL Solar PV Limited xi. Coal India Africana Limitada (CIAL) – Foreign Subsidiary

2.18 Coal India Limited (CIL) plays a pivotal role in supplying washed coking coal to India's steel industry, which requires premium quality coal with low ash for blast furnace operations. The demand for washed coal has grown with the expansion of steel production capacity in the country. However, domestic reserves of coking coal are limited and are generally of lower quality, necessitating beneficiation at washeries to upgrade raw coking coal to the standards required by steel plants.

2.19 In its written reply regarding existing capacity, the Ministry has furnished as under:

“Coal India Limited (CIL) presently operates 10 coking coal washeries with a combined operational capacity of 18.35 MTPA and 3 non-coking coal washeries with 21 MTPA capacity. This capacity addresses a significant portion of the current requirement; however, in view of the projected increase in raw coal production and growing demand from the steel sector, additional capacity augmentation and efficiency improvements are being pursued to ensure sustained availability of washed coal.”

a) Coking Coal Washeries & Non-Coking Coal Washeries

2.20 Coking coal washeries differ fundamentally from non-coking (thermal) coal washeries in their objective, process complexity and quality control parameters.

2.21 Coking coal washeries are designed to meet stringent metallurgical coal requirements where ash content must be controlled, as deviations can adversely affect performance of coke oven and blast furnace. Coking coal washeries typically operate as three-product systems, yielding clean coal (low ash for steel plants), middlings (intermediate product for power plants), and rejects. Generally, coking coal washeries are designed to produce clean coal having 18% ash.

2.22 In contrast, non-coking coal washeries are primarily aimed at reducing ash to improve calorific value for power generation, cement, or sponge iron applications, where quality tolerances are broader. Their circuits are comparatively simpler and typically involves partial washing with de-shaling units or single-stage jigs or heavy-media units designed to produce two products (viz. washed coal and 2nd product/rejects) with a greater emphasis on maximizing recovery and throughput.

Existing Coal Washeries

	CIL	Others	Numbers	Capacity (MTPA)
Coking Coal	10 (3 new)	05	15	30.35 (11.6 new)
Non-Coking Coal	03 (1 new)	63	66	211 (10 new)
Total	13 (4 new)	68	81	241 (21.6 new)

2.23 The details of existing Coking Coal washeries of CIL along with their year of operation and operable capacity are as under:

Existing Coking Coal Washeries of CIL

No.	Sub.	Washery	Year of Operation	Age	Operable Capacity (MTPA)	
1	BCCL	Madhuband New	2023	2 years	5.00	- Can be divided into New Regime and Old Regime washeries New Regime: 3# . All in BCCL Old Regime: 7#. 3 in BCCL, 4 in CCL
2	BCCL	Patherdih 1 New	2020	5 years	5.00	
3	BCCL	Dahibari New	2018	7 years	1.60	
4	BCCL	Moonidih Old	1983	42 years	0.80	- This apart, BCCL is using 1.5 Mn Te idle capacity of Tata Steel Ltd (TSL) - So, total operable capacity in CIL is $18.35+1.5= 19.85= 20$ Mn Te
5	BCCL	Madhuband Old	1998	27 years	1.25	
6	BCCL	Bhojudih	1964	62 years	0.65	
7	CCL	Kathara	1969	56 years	0.80	- Capacity in BCCL: $14.30+ 1.5$ TSL= 15.80 MTPA - Capacity in CCL: 4.05 MTPA
8	CCL	Swang	1970	55 years	0.25	
9	CCL	Rajrappa	1987	38 years	1.70	
10	CCL	Kedla	1997	28 years	1.30	
					18.35	

b) Performance of Existing Washeries

2.24 Current capacity and supply of coking coal washeries of CIL is 18.35 MTY and 2.41 MTY (Approx.) respectively. Washed coal production quantity depends on the washing characteristics of raw coal supplied. There is difference in desired range and actual supplied raw coal quality to Washery resulting in low capacity utilization and yield as compared to the designed conditions.

2.25 As informed by the Ministry of Coal, the performance of washeries (both Coking and Non-Coking Coal washeries) is as under:

PERFORMANCE OF WASHERIES

Washery	Capacity	Raw Coal Feed			Washed Coal Production		
		Target for FY26	Actual	Target for FY27	Target for FY26	Actual	Target for FY27
COKING COAL WASHERIES							
BCCL	14.30	9.76	5.46	10.65	2.59	1.59	3.01
CCL	4.05	3.00	2.07	3.05	1.00	0.59	1.00
CIL	18.35	12.80	7.53	13.70	3.59	2.18	4.01
NON-COKING COAL WASHERIES							
CCL	6.50	4.50	3.38	4.50	4.28	3.35	4.28
MCL	10.00	9.97	4.05	10.00	7.85	3.16	7.87
NCL	4.50	-	-	-	-	-	-
CIL	21.00	14.50	7.43	14.50	12.13	6.51	12.15

2.26 While responding to a question on the specific bottlenecks which explain the gap between capacity and utilization of washeries, it has been submitted as under:

“Major reasons for gap between capacity and utilization:

- Difference in the coal characteristics in raw coal supplied when compared with the design of Washery.
- New washeries (e.g. Madhuband New, Patherdih New, Dahibari) are still in stabilization phase and constrained by evacuation bottlenecks such as silo failure, incomplete BOBR hopper line, and linked mines production limitations.
- Old washeries (Moonidih, Madhuband Old, Kathara, Swang, Rajrappa, Kedla etc.) are operating below rated capacity due to ageing equipment, partial circuits being out of service, and inadequate or delayed supply of linked raw coal from mines.

By 2030, 58 MT washing capacity is planned to generate 23 MT washed coal”.

2.27 On being asked whether the existing capacity of washeries is sufficient to match rising raw coal output and steel sector demand, it was furnished as

under:

“Coal India Limited (CIL) presently operates 10 coking coal washeries with a combined operational capacity of 18.35 MTPA and 3 non-coking coal washeries with 21 MTPA capacity. This capacity addresses a significant portion of the current requirement; however, in view of the projected increase in raw coal production and growing demand from the steel sector, additional capacity augmentation and efficiency improvements are being pursued to ensure sustained availability of washed coal.”

2.28 Further stating the steps that are being taken for effective utilization of total existing combined washing capacity of 18.35 MTPA, it was submitted:

“To ensure effective and time-bound utilization and augmentation of the existing washing capacity of 18.35 MTPA, the CIL is undertaking measures including:

- Revival of 3 old washeries to enhance the washing capacity by 4.23 MTPA.
- Renovation projects for two of its old washeries to improve their washing capacity and operational efficiency.
- Expediting commissioning of new and upcoming washeries.”

2.29 The Committee note that the performance data for FY 2025-26 (till January 2026) shows BCCL achieving only 28.76% washed coal yield and CCL 29.16%. Against the installed capacity of 18.35 MTPA, CIL has actually produced only 3.59 MT of washed coking coal. The Ministry has stated in this regard that the primary reason for low utilization of coking coal washeries is 'shortage of coking coal as per washery design, meaning the mines adjacent to the washeries are not producing enough coal of the right grade to feed the plants. O b e i n g asked about the corrective actions, it was stated that CIL has taken t h e following initiatives for increasing the utilization of existing coking coal washeries:

a. Raw coal linkages to washeries are being rationalized considering the economic viability.

b. Renovation of 4 old washeries for technological upgradation to enhance operational efficiency.

2.30 In this context, the Committee wanted to know the number of existing washeries currently meeting the 95 per cent organic-efficiency benchmark and reasons for under-performance in others and whether BOO/BOM/WDO contracts will link payments or bonuses to sustained achievement of target organic efficiency and yields, not just throughput. To this, it was replied as under:

“Three new washeries in BCCL and one washery in MCL are being operated with organic efficiency 95% (Under BOM operator). Whereas in CCL, only Piparwar Washery is meeting 95% organic efficiency benchmark. Other existing washeries are operated departmentally and are underperforming due to outlived technological life. They are being operated with regular renovation and repairing works.

Washery Model bid documents are well provisioned with penalty clauses for not achieving the minimum Organic efficiency of 95 per cent throughout the contract period. Further provision of bonus is included in the bid documents.

Example: The specific clause of NIT of BOO document is reproduced below,

Quote:

Organic Efficiency

The successful bidder shall guarantee that the Organic Efficiency (OE) is not less than 95% considering targeted ash % of washed/clean coal as 18%. OE below 95% shall not be acceptable. In case of shortfall of OE from 95%, the successful bidder shall modify the plant to achieve minimum OE of 95%.

In case, OE is less than 95% during operation, the penalty for lower OE shall be worked out and it will be equal to the price of loss of washed/clean coal on this account. Any decrease in organic efficiency below the fraction of 0.05% shall be ignored whereas variation in organic efficiency for 0.05% and above will be treated as 0.1%.

If the OE achieved is less than 95% during operation of the plant in successive months, the WO shall take corrective measures to establish minimum 95% OE of the plant within a week. However, penalty shall remain in force till the WO achieves the 95% OE.

Unquote:

Quote:
BONUS

For achieving higher Organic Efficiency (OE) than 95% considering targeted ash% of washed/clean coal as 18%, bonus will be paid to the WO by CCL Bonus will be paid for each 0.1% increase in the OE. Any increase in organic efficiency below the fraction of 0.05% shall be ignored whereas variation in organic efficiency for 0.05% and above will be treated as 0.1%. The bonus will be calculated on the basis of additional yield of washed/clean coal at targeted ash of 18% achieved due to higher OE than 95%. Bonus will be shared equally by the WO & CCL.

However, no bonus shall be paid to WO by CCL on account of yield of washed coal (power).

Unquote

2.31 Regarding the problems being faced by existing washeries, the Ministry in its reply has furnished as under:

“Most of the older washeries of CIL particularly those under BCCL and CCL (Moonidih, Madhuband Old, Kathara, Swang, Rajrappa, Kedla etc.) have already outlived their designed operational life. These washeries are presently facing challenges due to outdated process technology which is no longer compatible with the current grade and characteristics of raw coal being supplied and partial circuits being out of service.

As a result, the washeries are experiencing reduced clean coal recovery and frequent operational downtime. Further, the fine coal circuits in older coking coal washeries are non-operational, leading to loss of valuable coking coal fines and adversely impacting overall washery performance.”

c) Improving Washery /recovery yield

2.32 As regards washery quality assessment, it has been informed that the consumers have the option for enabling third party sampling and analysis of the products offered from the Washerries. Currently, CIL has various empaneled independent agencies for sampling and analysis for quality of each rake supplied from Washery to various Steel Plants and Power Plants.

2.33 The Committee during the examination of the subject desired to know about any comparative study of capacity utilisation, recovery yield, operating cost and water consumption for Indian washeries vis-à-vis Australia, South Africa, China etc. The following was the response:

“The Ministry of Coal is undertaking a comparative assessment of coal washery performance parameters such as capacity utilisation, recovery yield, operating efficiency and water consumption with international practices in countries such as Australia, South Africa and China. The study is aimed at identifying best practices and potential areas for technological improvement in the Indian coal beneficiation ecosystem.

Based on the findings of such benchmarking, the Ministry, in coordination with coal companies and research institutions, will explore suitable avenues for technology adoption, collaborative research and knowledge sharing. At present, the assessment is under progress and further initiatives, including possible technology partnerships or joint R&D efforts, will be considered based on the outcomes of this exercise. No specific timeline has been finalized at this stage”.

CHAPTER III

AUGMENTING WASHED COAL PRODUCTION AND INFRASTRUCTURE

Enhanced availability of washed coal provides significant industrial, economic, and environmental benefits. Improved coal quality enhances boiler efficiency in power plants, improves blast furnace productivity in steel plants, and supports the use of high-grade non-coking coal for pulverized coal injection. It also facilitates coal gasification and downstream chemical production. Economically, washed coal reduces transportation costs, lowers maintenance expenditure, and enhances industrial productivity and competitiveness. Environmentally, reduced ash content lowers particulate emissions, decreases ash disposal requirements, and improves overall environmental performance.

Key Initiatives to Augment Washing Capacity

Enhancing coking Coal Production

- Increased production of coking coal to feed washeries

Setting up of Washeries

- 8 coking coal washeries having capacity 21.5 MTY by FY 2030.
- 4 old coking coal washeries for revival
- 7 Non-Coking coal washeries having capacity of ~58 MTY by FY2032.

Technology Intervention

- To increase domestic coking coal blending from 10% to 30% with stamp charging Technology.
- Dry Washing Technology.
- Modernization of Existing coal washeries.

Policy intervention

- Providing coal linkage to washeries.
- Mechanism for Reject Disposal.

9

3.2 When asked whether the planned washery capacity of both existing and upcoming washeries was adequate to meet projected washed coal demand, the Ministry has submitted as under:

“The existing demand of washed coal is about 48 MT, while supply from existing and upcoming washeries is around 23 MT. The shortfall is recognized and is being addressed through planned augmentation and modernization of washery capacity to progressively reduce the gap and imports”.

A. ROADMAP TILL FY 2030

3.3 The estimated washed coking coal requirement as per National Steel policy 2017 and Mission coking coal is as below:

Particulars	
Total coking coal requirement in FY 2030	161 million tonnes (MT)
Washed coking coal requirement, (Ash content max. 18%), considering indigenous coking coal in blend @ 30% in case of stamp charged battery.	48 MT
Domestic washed coking coal production by FY2030	23 MT
Gap in demand and supply	25 MT

3.4 The year-wise roadmap till FY 2029–30 for expanding washed coal production, including raw coal feed and expected output from each new/renovated/ monetised washery is as under:

Type	Existing Washeries		Additional new Washeries		Renovation of Old Washeries		Monetization of Old Washeries		Status CIL Washeries		
	Nos	Capacity (MTY)	Nos	Capacity (MTY)	Nos	Capacity (MTY)	Nos	Capacity (MTY)	Nos	Capacity (MTY)	Remarks
Coking Coal Washeries	10	18.35	8	21.50	4	7.10	3	4.23	18*	44.43	Completion by FY2030
Non-Coking Coal Washeries	3	21.00	7	58.00	0	0	0	0	10	79.00	Completion by FY2032

Year wise projections of Washed Coking Coal is below:

Sub	FY25 (A)	FY26(A)	FY27	FY28	FY29	FY30
CIL	2.42	2.18	4.01	6.59	13.55	15.77
Others	3.49		3.49	5.49	7.00	7.00
TOTAL	5.90			12.08	21.55	22.77

Year Wise Plan of Raw Coal Feed and Washed Coal Production of CIL Washeries

Washery Classification	Washery	2026-27		2027-28		2028-29		2029-30	
		Feed	WC	Feed	WC	Feed	WC	Feed	WC
BOM Operated	Moonidih	0.90	0.40	1.60	0.80	1.60	0.80	1.60	0.80
	Dahibari	0.90	0.135	1.60	0.32	1.60	0.32	1.60	0.32
	Patherdih-I	2.40	0.60	5.00	1.25	5.00	1.25	5.00	1.25
	Madhuband	3.60	0.80	5.00	1.00	5.00	1.00	5.00	1.00

	Bhojudih New	1.00	0.30	2.00	0.40	2.00	0.40	2.00	0.40
	Patherdih-II	0.00	0.00	2.50	0.50	2.50	0.50	2.50	0.50
	Moonidih New	0.00	0.00	0.00	0.00	2.50	0.63	2.50	0.63
Asset Monetization	Dugda (Monetization)	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.50
	Mohuda(Monetization)	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.16
	Madhuband(Monetization)	0.00	0.00	0.50	0.05	0.50	0.05	2.50	0.50
	Sudamdih (Monetization)	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.40
	BCCL-TSL Venture (D)	1.70	0.76	1.70	1.02	1.70	1.02	2.00	1.02
	Sub total BCCL	10.65	3.01	19.90	5.34	22.40	5.97	28.93	7.47
	Kathara	0.55	0.17	0.55	0.17				
	Sawang	0.30	0.04	0.20	0.05				
	Rajrappa	0.90	0.34	0.95	0.33	1.70	0.70	1.70	0.70
	Kedla	1.30	0.45	1.30	0.46	1.30	0.50	1.30	0.50
	New Kathara			0.50	0.25	3.00	1.80	3.00	1.80
	Basantpur-Tapin					4.00	1.50	4.00	1.50
	New Rajrappa					3.00	2.00	3.00	2.00
	New Sawang					0.50	0.18	1.50	0.60
	Dhori					2.25	0.90	3.00	1.20
	Sub total CCL	3.05	1.00	3.50	1.25	15.75	7.58	17.50	8.30
	TOTAL CIL	13.70	3.59	23.40	6.59	38.15	13.55	46.43	15.77

3.5 The subsidiary-wise washing capacity and production targets along with current achievements are as below:

Sub	No	Capacity	Raw Coal Feed			Washed Coal Production		
			Target for FY26	Actual	Target for FY27	Target for FY26	Actual	Target for FY27
BCCL	06	14.30	9.76	5.46	10.65	2.59	1.59	3.01
CCL	04	4.05	3.00	2.07	3.05	1.00	0.59	1.00
CIL	10	18.35	12.80	7.53	13.70	3.59	2.18	4.01

To achieve the projected growth in coking coal production from 66 MT to 140 MT, the additional 74 MT will be sourced from a combination of ongoing and upcoming CIL projects, and operationalization of auctioned coal blocks.

To manage coal quality variability, third party sampling agency are deployed in all the new washeries for carrying out the washability tests and BOM operator has to ensure the Organic efficiency as stipulated in contract agreement regularly.

3.6 Regarding the plans to increase domestic coking coal blending from 10% to 30% through stamp charging technology, it was desired to know implications for steel mills to adopt this technology and the details of SAIL, TATA, and private steel mills which have commissioned or committed to stamp-charged coke batteries by FY 2030. Further, queries were also raised about the projected reduction in coking coal import under the 30% stamp-charged blending target. In a written reply, it was stated:

“The Ministry plans to increase domestic coking coal blending from 10% to 30% by FY 2030 through wider adoption of stamp-charging technology.

Status of Stamp Charging Technology:

Existing Capacity: 6.55 MTPA (TATA Steel)

Planned Capacity: ~24 MTPA (SAIL & AMNS) till 2030

Adoption of stamp-charging requires steel mills to commission new or retrofit existing batteries, with each battery typically adding ~0.5–1 MTPA of coke capacity. Under the 30% blending target, domestic coking coal utilisation will increase significantly, reducing import dependence by roughly ~15-18 MT per year, based on current demand, and yielding potential cost savings of ₹5,500–9,700 crore (depending on international coal prices and domestic supply costs).

Current status of dry washing projects of CIL is given below.

- CIL has envisaged to set up a 2.0 MTY dry deshaling plant at Chitra mine of ECL.
- Possibility of R&D pilot project on dry deshaling technology viz. Air Fluidized vibrating Deck separator, Air dense medium fluidized bed separator and X-ray sorter is being explored with NML, IIT KGP and CIMFR, Dhanbad respectively.
- A dry washing plant is being considered and PFR & related documents are being prepared by CMPDI for installing dry washing technology washery in BCCL.”

3.7 During the examination of the subject, the Committee also desired to know about the export potential of washed coal from India in view of the potential export market by FY 2030 given global demand for high-quality coal. In reply, it was submitted as below:

“At present, exports of washed coal from India are nil, as domestic requirements of the power and steel sectors are accorded priority. With improved quality and consistency from expanded washing capacity, there is scope to access limited export markets by FY 2030, particularly in nearby Asian countries, after meeting domestic demand.

Most of the coal gasification-based and value-added chemical projects in India are currently at pilot, demonstration and early commercial stages. As these projects scale up, they are expected to progressively absorb high-grade washed coal by FY 2030, supporting cleaner coal utilization, import substitution in chemicals and fuels, and diversification of coal use.”

“Further, it was stated that there is no specific, dedicated commitment yet for washed non-coking coal exports. However, export potential of coal to neighboring countries is being assessed.”

B. WASHERY AUGMENTATION PLAN OF COAL INDIA LIMITED (CIL)

3.8 Coal India Limited is implementing eight new coking coal washeries with a combined capacity of 21.5 MTPA across key coalfields. Additionally, seven potential locations have been identified across subsidiaries such as ECL, MCL, SECL, NCL, and WCL for non-coking coal washeries with an indicative combined capacity of 58 MTPA to meet the growing demand from the power sector. Parallel efforts are underway to monetize three old washeries with a capacity of 4.23 MTPA through private participation, enabling modernization and improved operational efficiency. Coal PSUs are also leveraging idle private washeries, including those of Tata Steel, to augment washed coal supply.

3.9 Washery projects are implemented through a variety of contract models including Build- Own-Operate (BOO), Build-Operate-Maintain (BOM), and Washery Developer Operator (WDO), enabling flexible execution. Technology adoption focuses on improving washability and reclaiming fines through modular and hybrid beneficiation circuits, while environmental safeguards ensure compliance with statutory clearances, water management, and ash disposal norms.

3.10 CIL aims to boost raw coking coal feed to washeries from 7.53 MTPA in FY 2025-

26 to 46.43 MTPA by FY 2029-30, targeting washed coal production of 15.77 MTPA. This significant scale-up will substantially reduce dependence on imports and position CIL as a key supplier of high-grade washed coking coal to India's steel industry, promoting import substitution and aiding strategic autonomy.

PROJECTED COKING COAL WASHING CAPACITY ADDITION BY CIL

Targeted Projections of Coking Coal Washing Capacity (MTPA)



Targeted Projections of Washed Coking Coal (MTPA)

Sub	FY25 (A)	FY26	FY27	FY28	FY29	FY30
BCCL	1.65	2.59	4.90	5.34	5.34	7.47
CCL	0.77	1.00	1.00	1.25	1.42	8.30
Total CIL	2.42	3.59	5.90	6.59	6.76	15.77

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Washery Augmentation plan of CIL

BCCL		CCL		Total CIL	
3# (7MTPA)		5# (14.5 MTPA)		8# (21.5 MTPA)	
Under Construction					
No	Washery	Capacity (MTPA)	COD		
1	Bhojudih, BCCL	2.0	March'26		
2	Patherdih II, BCCL	2.5	Dec'26		
	Total	4.5			

Planned			
No	Washery	Capacity (MTPA)	COD
1	New Moonidih , BCCL	2.5	Sep-29
2	New Kathara, CCL	3.0	Mar-29
3	New Rajrappa, CCL	3.0	Oct-29
4	Dhori, CCL	3.0	Dec-29
5	Basantpur-Tapin, CCL	4.0	Apr-29
6	New Sawang,CCL	1.5	May-29
	Total	17.0	

Monetization of Washery Additional (4.23 MTY capacity)

- ❖ One washery 2 MTPA of BCCL monetized (Dugda)
- ❖ Two more Washeries 2.23 MTPA of BCCL planned for monetization (Sudamdih, Monidih)
- ❖ **Total: 4.23 MTPA**

3.11 The following are undertaken by CIL to enhance its coal washing infrastructure under the Mission Coking Coal initiative:

“New Coking Coal Washeries:

Eight new coking coal washeries with a total capacity of 21.5 MTPA are underway. Of these eight washeries, Bhojudih (2 MTPA, 99.5% complete) is under trial run and Patherdih II (2.5 MTPA, 44% progress). Others such as Moonidih (2.5 MTPA), New Kathara (3 MTPA), New Rajrappa (3 MTPA), Basantpur-Tapin (4 MTPA), Dhorī (3 MTPA), and New Sawang (1.5 MTPA) are at various stages of implementation.

Monetization:

Four old washeries collectively offering 6.73 MTPA capacity are being monetized via private sector partnerships where operators upgrade and run these facilities. This approach aims to optimize utilization and bring modern technology. Among these 4, Dugda Coal Washery (2 MTPA) has been monetised in FY26.

Renovation:

Four old washeries, each two in BCCL and CCL are being renovated to improve washing capacity. Out of these, renovation of Rajrappa washery, CCL is completed, Renovation of old Moonidih washery, BCCL is under completion stage (TDC: 30.06.2026).

Private Sector Collaboration:

CIL also leverages idle washeries of private players, such as Tata Steel, to add about 2 MTPA capacity to the washed coal supply pool.

Raw Coal Supply Augmentation:

Revival and operationalization of 11 discontinued coking coal mines, with agreements signed for 8 of these, aim to increase raw coal feed to washeries. BCCL, CCL have committed to ambitious coal production targets aligned with washery requirements.

New Non-Coking Coal Washeries:

Further, Considering the washed non-coking coal demand from the power sector, additional non-coking coal washeries are to be established by the CIL. CIL has identified seven potential locations/ mines for setting up of non-coking coal washeries with tentative combined capacity of 58 MTPA in different subsidiaries like ECL, MCL, SECL, NCL and WCL.”

3.12 Regarding infrastructure planning, mining throughput and logistics planning by CIL to achieve the target of increasing raw coal feed from 7.53 MTPA to 46.43 MTPA and washed coking coal production to 15.8 MTPA by FY 2029-30 under Mission Coking Coal,

the Ministry has stated as under:

“Infrastructure Planning:

CIL targets establishing 11 new coking coal washeries with a combined capacity of 33.1 MTPA to support washed coal output of nearly 15.8 MTPA. Modernization of aging washeries at subsidiaries like Bharat Coking Coal Limited (BCCL) and Central Coalfields Limited (CCL) ensures optimal utilization beyond their designed lifespan. First Mile Connectivity (FMC) projects will mechanize coal handling plants (CHPs), silos, and rapid loading systems to boost evacuation capacity from 151 MTPA to 994 MTPA by FY 2028-29.

Mining Throughput Strategy:

Production ramp up is being undertaken via new and existing underground (UG) mines using mass production technologies like Continuous Miners (CMs), highwall (HW) mining in abandoned sites, and large-capacity UG operations, where feasible. CIL subsidiaries aim for 105 MT raw coking coal by FY 2029-30, including revenue-sharing models for 11 discontinued mines.

Logistics Evacuation Plan:

The National Coal Logistics Policy, launched in February 2024, prioritizes rail evacuation (targeting 60% from current 45-50%), rail infrastructure upgrades, and reduced road transport through conveyor-based mechanized transfers. Investments exceed INR 50,000 crores for rail sidings, congestion resolution, and multi-modal integration near mines. Origin-destination studies identify gaps to support peak production needs.”

3.13 In its reply regarding the technology and quality standards mandated by the Ministry for new washeries in terms of yield/recovery, ash reduction, water consumption and fines/slurry handling, the Ministry has stated as under:

“As of now, no such technology and quality standards has been mandated by the Ministry for new washeries. However, to meet the consumer demands of steel sector and power sector, target ash content of washed coking coal is generally kept at 18% and for washed non-coking coal the target ash content is generally 34%.

Yield depends on the washability characteristics and target ash content in the washed coal. All new washeries have been envisaged to handle the fines and slurry generated in the environment friendly manner to meet all statutory and regulatory compliances.”

a. New Coking Coal Washeries

3.14 Eight new coking coal washeries with a total capacity of 21.5 MTPA are underway. Of these eight washeries, two are nearing completion—Bhojudih (2 MTPA, 99% complete) and

Patherdih II (2.5 MTPA, 44% progress). Others such as Moonidih (2.5 MTPA), New Kathara (3 MTPA), New Rajrappa (3 MTPA), Basantpur-Tapin (4 MTPA), Dhori (3 MTPA), and New Sawang (1.5 MTPA) are at various stages of implementation.

3.15 Providing the details of each of the upcoming washeries, i.e., distance of the washery from coal mine and the state, capacity, estimated cost, original completion timeline, expected completion and contractual models, the Ministry submitted as under:

Sl. No.	Name of washery	Linked mines	Distance from Mine(km)	Estimated Cost (crores)	State	Scheduled Time of completion	Expected completion	Contractual models
1	New Bhojudih (2 MTPA)	N/S Tisra OCP (Seam – I, II & III)	12-15	300	West Bengal	Sep-2020	Sep-2025	BOM
2	Patherdih II (2.5 MTPA)	a) Gondudih OCP (Seam – II) b) Dhansar/Industry/Kusunda/Khas Kusunda (Seam – II) Nichitpur Ena	5-7	280	Jharkhand	Oct-2018	Mar-2026	BOM
3	New Moonidih (2.5 MTPA)	Moonidih mines (Seam XV) Bhowra mine Kujama Mines	3-4	-	Jharkhand	Mar-2029	Mar-2029	BOM
4	New Kathara (3 MTPA)	Govindpur Phase-II Expansion Kathara mine	1-11	380	Jharkhand	Sep-2028	Sep-2028	BOO

		Govindpur UG Pichri OCP						
5	New Rajrappa (3 MTPA)	Rajrappa RCE OC	2-3	510	Jharkhand	Apr-2029	Apr- 2029	BOO
6	Basantpu r-Tapin (4 MTPA)	Kotre Basantpur Pachmo (KBP) OCP	1-2	504	Jharkhand	Oct-2028	Oct- 2028	BOO
7	Dhori (3 MTPA)	AADO CM Tarmi-Kalyani SD	1-13	468	Jharkhand	Apr-2029	Apr- 2029	BOO
8	New Sawang (1.5 MTPA)	Sawang- Pipradih Jarangdih Godo OCP	1-11	338	Jharkhand	Dec-2028	Dec- 2028	BOO

(Question 9 a, LoP Briefing)

As regards private sector participation in washery projects and the quantum of investment committed so far by the private sector, and the measures being taken to make such participation more attractive, in a written reply, it was submitted as under:

- “In BOO washeries, the capital is invested by the Private party. In BOM washeries, the private party is involved in construction and operation works only.
- 8 projects are being implemented with private sector participation. 3 under BOM model and 5 under BOO model.
 - Estimated investment by private sector in BOO model for 5 washeries is 2200 Cr.
 - Recently, the technical and financial qualification requirements for washery tenders in BOM/BOO mode have been relaxed. Furthermore, incentive/bonus clauses have been added and modified for wider participation in washery tenders.

(Reply LoP.29, Briefing)

When the Committee desired to know the reasons for delays in each of the new washeries, the details are provided vide the following table:

Sr. No.	Subs.	Upcoming washeries	Reason for Delay
1	BCCL	Bhojudih Coal Washery	Due to Poor performance & financial crisis of BOM Operator i.e. M/s ACB (India) Limited
2	BCCL	Patherdih NLW Washery	Due to Poor performance & financial crisis of BOM Operator i.e. M/s ACB (India) Limited
3	BCCL	Moonidih Coal Washery	LoI for "Setting up of 2.5 MTPA Moonidih Coal Washery on BOM concept" awarded to M/s ACB (I) Limited has been cancelled due to their poor performance in other projects. To be re-tendered on basis of Revised PFR.
4	CCL	New Kathara	Site handover is delayed due to accumulated stock which is being evacuated. Construction work will start in May'26.
5	CCL	New Rajrappa	EC has been obtained but subject to change in land use. Application for change in land use plan submitted on 20.02.2024. Compliance of EDS is under progress. Change in land use expected by March'26.
6	CCL	Basantpur-Tapin	One WP PIL No. 1932/2021 has been filed against construction which is delaying start of work.
7	CCL	Dhori	Final EIA/EMP under preparation. Project involves modification and development of linked siding with huge financial impact. Project Feasibility Report prepared is being reviewed for cost optimization on logistics part and other financial aspects.
8	CCL	New Sawang)	ToR obtained on 31.5.2024. PH conducted. Final EIA/EMP submitted on 23.10.2025. EAC awaited. Grant of EC expected by Jan'26.

(Reply to IoP 9 c, Briefing)

3.16 On being asked about the risks and constraints in achieving 21.5 MTPA of new washery capacity within the planned timelines, it was submitted that the availability of hindrance free land and timely grant of statutory clearances may defer commissioning beyond FY 2032.

3.17 The Committee had observed that the setup cost for CIL's new washeries ranges from Rs. 1.2 to 3 billion, and the operating costs are Rs. 70 to 110 per tonne. So, they desired to know the aggregate capex commitment, and the envisioned payback period assuming stable raw coal supply and 85% capacity

utilization for the 8 coking coal washeries totaling 21.5 MTPA; as well as the 7 non-coking coal washeries with 58 MTPA capacity. To this, the reply was as under:

“For 8 coking coal washeries of CIL, estimated investment by private sector in BOO model for 5 washeries is ₹2200 Cr. (Approx) and investment by CIL in BOM model for 3 washeries is ₹1100 Cr. (Approx). With assured raw coal supply and ~85% capacity utilization, these projects are structured for viable cost recovery within the normal payback period of 1.5-2 years.

For non-coking coal washeries, feasibility reports are under preparation stage for details including costing”.

3.18 Regarding the justification for operationalising new coal washeries when existing ones are not functioning at optimal level, given that actual washed coking coal production of 2.26 MT in FY 2023-24 is relatively low compared to the total washing capacity of 18.35 MTPA, the Ministry has stated as under:

“New washeries are planned to cater the demand of steel sector against the production capacity of the CIL’s coking coal mines. Existing washeries are running with low-capacity utilization due to technologies with defunct fine coal circuits.”

3.19 On being inquired regarding the risks and constraints in achieving 21.5 MTPA of new washery capacity within the planned timelines, the Ministry has stated as under:

“Risks that could defer commissioning beyond FY 2032 are availability of hindrance free land and timely grant of statutory clearances.”

3.20 In this context, regarding the project-wise status matrix for all new washeries covering subsidiary, model, LoA date, original and revised CoD, physical and financial progress and specific reasons for delay, and identification of projects already slipping beyond FY 2030 along with corrective actions, the Ministry has stated as under:

Detailed statement of washeries (for which tenders have been finalized) is tabulated below,

Name of Washery	Subsidiary	Mode	LoA date	original /revised CoD	Phy. Prog.	Fin. Prog.	Reasons for delay
Patherdih-II	BCCL	BOM	14.12.2015	27.04.2018 / 31.03.2027	49.00 %	42.41 %	Delay by M/S ACB (India) Ltd, BOM Operator, in executing the contract due to their financial crisis.
Bhojudih	BCCL	BOM	01.06.2017	30.09.2020 / Under trial-run	99.50 %	94.01 %	Delay by M/S ACB (India) Ltd, BOM Operator, in executing the contract due to their financial crisis.
New Kathara	CCL	BOO	3.1.2024	Dec'27/Mar'29	Yet to start	Yet to start	Transfer of EC in name of successful bidder (first of its kind in CIL) took substantial time and granted in Oct'24. Identified site is under measured raw coal stockyard. Utilization of raw coal stock by consumption in existing washery in progress. Handover of site after gainful utilization of stocked raw coal.
Basantpur-Tapin	CCL	BOO	26.10.2024	Mar'28/Apr'29	Yet to start	Yet to start	A PIL filed under WP was hindering progress in making application for transfer of EC. Now, on 19.02.2026, Hon'ble Jharkhand High Court has disposed-off the subject PIL/ WP. Application for transfer of EC was submitted on 06.04.26.
New Sawang	CCL	BOO	9.2.2026	May'29	Yet to Start	Yet to start	Project activities are streamlined. Site encumbrances are being taken care off.
New Rajrappa	CCL	BOO	To be issued	Oct'29	Yet to Start	Yet to start	Change in land use of forest land has been applied. Required documents (Wildlife management plan and Approved mining plan) is being prepared for obtaining the desired change in land use.

3.21 Among the 8 new coking coal washeries planned, it has been observed that Bhojudih (99.5% complete) and Patherdih II (46.5% complete with 7-year contractor delay) represent stark contrast. In this context, the Committee desired to know the available enforcement mechanisms to ensure that Patherdih II and other delayed

projects meet their revised CoD. In a written reply, the Ministry stated as under:

“The delay at Patherdih II is being addressed through established contractual and oversight mechanisms. Project contracts provide for liquidated damages for inexcusable delays, recovery of dues from running bills, and invocation of performance bank guarantees in case of continued non-performance. Persistent delays also allow for contract termination, re-tendering, and recovery of excess completion costs from the defaulting contractor.

To ensure adherence to revised CoDs, projects are subject to tight milestone-based monitoring by the subsidiary and Coal India Limited, with periodic reviews and show-cause notices where slippages persist. Extensions, if any, are granted only for justified reasons and can still attract penalties. Collectively, these measures create financial and contractual accountability for contractors with poor performance and are being applied to delayed washeries, including Patherdih II.”

3.22 The Committee desired to be apprised regarding technology alternatives to conventional heavy-media cyclone technology being piloted to improve coal recovery rates or reduce operating costs, the deployment timeline for advanced washing technologies and the Ministry's strategy to optimise beneficiation efficiency. To this, the Ministry has stated as under:

“All the new washeries have been designed on state-of the art technology like Froth flotation and Dense media cyclone etc. The eight new coking coal washeries are being set up using proven heavy-media cyclone (HMC) technology, which remains the industry standard for Indian coking coal due to its robustness under high ash and variable feed conditions. At the same time, the Ministry of Coal and Coal India Limited are evaluating and piloting technology enhancements, including advanced dense-medium cyclone configurations, fine-coal circuits, and selective use of froth flotation for ultra-fines, to improve yield, reduce misplacement losses, and lower operating costs

To address raw coal variability, systematic pit-head coal characterization is being carried out, including washability studies, flotation behaviour, and mineralogical analysis. This data is shared with washery operators during tender to enable process optimisation, ensure consistent beneficiation efficiency, and maximise clean-coal yield while maintaining quality standards.”

b. Monetization

3.23 Four old washeries (Dugda, Sudamdih, Madhuban, Mahuda) collectively offering 6.73 MTPA capacity are being monetized via private sector partnerships where operators upgrade and run these facilities. This approach

aims to optimize utilization and bring modern technology. The status of monetisation is as under:

“The status of Dugda and Sudhamdih Washery are as follows:

- a. Monetisation tender for Dugda had been finalised.
- b. Tender for Sudamdih had been floated twice but single firm participated. As such, no competitive auction could be done. Further, probable vendors meet is likely to be organized for ensuring broader participation by 1st Week of Jan-2026.

The Madhuband monetization tender which was envisioned to be floated by November 2025 could not be actualized due to forest land issue. Hence, it has been decided to renovate this old washery to achieve optimum performance”.

3.24 The current status of tender processes for the Coking Coal Washeries is as under:

Project Name	Capacity (MTPA)	Subsidiary	Status	Critical Analysis
Bhojudih	2.0	BCCL	Construction completed and under trial run	The only near-term success. Ready for inauguration.
Patherdih II	2.5	BCCL	49% Complete (March-27)	Critical Failure. "Prolonged poor performance by contractor (7 years delay)."
New Moonidih	2.5	BCCL	Tender Cancelled	To be re-tendered by May'26. Completion pushed to Mar-29.
New Kathara	3.0	CCL	LoA Issued Jan '24	Raw coal stock already accumulating (3.10 LT).
New Rajrappa	3.0	CCL	LoI Issued Dec '22	Land use plan pending. Completion Apr-29.
Dhori	3.0	CCL	Tender Cancelled	Re-tendering by May'26. Completion Apr-29.
Basantpur-Tapin	4.0	CCL	LoA Issued Oct '24	Bidder reluctant due to court case.
New Sawang	1.5	CCL	LoI Issued Dec '24	EC application submitted. Completion Dec-28.

c. Renovation

3.25 Two old washeries, each one in BCCL and CCL are being renovated to improve washing capacity.

3.26 During the examination of the subject, the Ministry had acknowledged that CIL washeries are 30-40 years old and deliver washed coal yields of roughly 30 per cent, compared to about 45 per cent in private washeries such as Tata Steel, largely due to technology obsolescence and difficult washability of Indian coking coal.

3.27 In its written reply regarding the estimated annual quantity of coking coal fines being lost from each older CIL coking washery where fine-coal circuits are non-operational, the associated revenue and import impact, and the plant-wise schedule, cost estimate and technology choice for reviving these fine-coal circuits, the Ministry has stated as under:

“In BCCL, the fine-coal circuit at Moonidih Coal Washery is non-operational, which has been taken up under the washery renovation programme. Recovery of coking coal fines through installation of a Froth Flotation Plant is under implementation and is expected to commence by June 2026. In CCL, the entire quantity of fine coal generated during the washing process is currently recovered through settling ponds and thickening systems, and subsequently disposed of through e-auction to consumers, thereby ensuring that no material loss occurs. However, CCL is planning to undertake renovation of its existing washeries like Kedla Washery (tentative timeline - Sept 2027), which will incorporate dedicated fine coal circuits like froth flotation for improved recovery and process efficiency.”

3.28 In its written reply regarding the detailed fallback plan for the Madhuban washery in case the revised plan to renovate it through CMPDI does not progress, the Ministry has stated as under:

“Renovation of Madhuban Coal Washery in BCCL is being taken up departmentally instead of through CMPDI. At present EOI/ estimation for the renovation of washery is being prepared and is expected to be floated soon.”

d. Private Sector Collaboration

3.29 “The BCCL-Tata Steel collaboration produced 0.75 MT of washed coal in FY 2024-25 by utilising idle private washery capacity. This being a practical solution, the Committee desired to know the reasons for not replicating a similar modal at a much larger scale, given that there are 68 operational non-CIL washeries with substantial combined capacity of over 211 MTPA. To this, it was replied as under: “Based on the demand of washed coking coal and available idle washing capacity with Tata Steel, the collaboration could be possible. Similarly, if the power plants require additional washed non-coking coal, they can collaborate with private washeries as per existing system for utilizing the idle washing capacities. A committee has been constituted under Additional Secretary (Coal) to look into the possibility of utilization of idle washing capacity.”

3.30 When a question was asked regarding contractual models causing inadequate private sector participation, the Ministry in a written reply has furnished as under:

“To some extent, inadequate private sector participation has been witnessed in recent years. However, CIL has modified various clauses in tender documents to attract private players in setting up of washeries.”

3.29 When asked about the performance and capacity utilization of private coking coal washeries, the Ministry has submitted as under:

“Operation of private coking coal washeries, their capacity utilisation and washed coal yield depend on commercial, operational and market factors. As these washeries are not under the operational control of the Ministry of Coal, specific performance details are not centrally maintained.”

e. Raw Coal Supply Augmentation

3.30 Regarding the Ministry's plans for revival of discontinued coking coal mines to further strengthen the supply chain and the future action plan in this regard, the Ministry has stated as under:

“Yes. CIL has planned for extraction of coal from 32 discontinued/ abandoned mines (including coking coal mines) through Mine Developer cum Operator (MDO) revenue sharing model. 11 coking coal mines were offered out of which agreements have been signed for 8 mines. After operationalization of these mines, it is expected to contribute coking coal production of 6 MTY by year 2030.”

3.31 On being inquired whether revival of discontinued coking coal mines will ensure stable supply of raw coal to washeries, the Ministry has stated as under:

“With the operationalization of discontinued mines, coal supply to washeries can be increased.”

3.32 Further, regarding the measures in place to ensure uniform coal grade and consistency of washability, the Ministry has stated as under:

“Following measures are being taken at mine level to ensure supply of uniform grade coal to washeries with consistency in washability:

- Selective mining is being done to avoid mixing of coal and OB (overburden).
- Grade wise stocks are being maintained.

Sampling method has been strengthened to ensure consistent coal grade. Wherever feasible, Mechanised sampling is being gradually introduced by using Mechanical Augurs and Auto Mechanical Samplers in Silos for collection of samples.”

f. New Non-coking Coal Washeries

3.33 As informed by the Ministry, the Non Coking coal washery augmentation plan of CIL is as under:

Non coking Washery Augmentation plan of CIL									
Existing noncoking washeries				No	Existing Washery	Capacity (MTPA)	COD		
No.	Washery	Year	Capacity (MTPA)	1	Balaram - Hingula	15.0	FY31		
1	Bina, NCL	1999	4.5	2	Int. Kulda - Garjanbahal	12.0	FY31		
2	Piparwar, CCL	1997	6.5	3	Chitra OCP	2.0	FY31		
3	Ib Valley, NCL	2024	10.0	4	Bina-Kakri OCP	9.5	FY32		
			21.0	5	Baroud-Porda Chimtapani	7.0	FY32		
				6	Niljai	7.0	FY32		
				7	Sonepur Bazari	5.5	FY32		
						58.0			

Augmentation Plan					
Numbers	MCL	SECL	NCL	WCL	ECL
07 (58 MTY)	02 (27 MTY)	01 (7 MTY)	01 (7.5 MTY)	01 (07 MTY)	02 (9.5 MTY)

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3.34 Regarding the realistic timeline for operationalising all 7 non-coking coal washeries

with 58 MTPA aggregate capacity and the risks that could defer commissioning beyond FY 2032, the Ministry has stated as under:

“The realistic timeline for operationalizing all 7 washeries is FY2032.

Risks that could defer the commissioned beyond FY2032 are availability of hindrance free land and timely grant of statutory clearances.”

3.35 Details of seven planned non-coking coal washeries is tabulated below:

Sl.n	Name of the mine	Sub	Tentative Capacity (MTY)	Tentative Year of commissioning
1	Balaram - Hingula	MCL	15	FY 31
2	Int. Kulda - Garjanbahal	MCL	12	FY 31
3	Chitra OCP	ECL	2	FY 31
4	Bina-Kakri OCP	NCL	9.5	FY 32
5	Baroud-Porda Chimtapani OCP	SECL	7.0	FY 32
6	Niljai	WCL	7.0	FY 32
7	Sonepur Bazari	ECL	5.5	FY 32

3.36 The washed coal from all the above plants (except Sonepur Bazari) is planned to be supplied to thermal power plants. The washed coal produced by the Sonepur Bazari Washery is planned to be supplied to SNG gasification plant (~1.7 MTY), Import based thermal power plant (~1.5 MTY) and Steel sector for using as PCI coal (1-1.5 MTY).

3.37 In its written reply regarding whether the Ministry proposes to mandate or incentivise a minimum share of washed non-coking coal for large pit-head power stations with a timeline to progressively increase this share, the Ministry has stated as under:

“The Ministry of Coal promotes improvement in coal quality through beneficiation and washing so as to enhance efficiency in coal utilization and reduce environmental impacts. At present, the use of washed non-coking coal for power generation is guided by techno-economic considerations of power plants and environmental regulations. The Ministry continues to engage with stakeholders, including power utilities and other concerned Ministries, to encourage greater adoption of coal beneficiation. Any proposal regarding incentivizing a minimum share of washed coal for pit-head power stations would be examined in consultation with the concerned

stakeholders and in accordance with the prevailing policy and regulatory framework.

Coal washing decisions are taken based on techno-economic considerations, logistics, and end-use requirements. Environmental regulation governing coal usage by thermal power plants is notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC) under the Environment (Protection) Act, 1986.

In this regard, MoEF&CC issued a Gazette Notification dated 21 May 2020 amending the Environment (Protection) Rules, 1986, which provides as under:

Quote

“Use of coal by Thermal Power Plants, without stipulations as regards ash content or distance, shall be permitted subject to following conditions.”

Unquote

Accordingly, the earlier requirement relating to distance-based use of washed coal or restriction on ash content was revisited, while ensuring compliance with prescribed emission norms and environmental safeguards.”

3.38 While observing that power plants are a major consumer of washed non-coking coal, it was desired to know the current demand for washed non-coking coal from the power sector, and the manner this compare to the 58 MTPA capacity planned for new non-coking washeries. Since high-grade washed coal is envisioned for Pulverized Coal Injection (PCI) in blast furnaces, it was also desired to know the current usage of PCI coal in India's blast furnaces, and the incremental demand by FY 2030 to justify capacity expansion for high-grade Washerries. To this, the response was as under:

“Currently washed coal from the non-coking washeries at MCL is being sold. Fresh demand of washed coal is anticipated based on landed cost of coal. Therefore, additional capacity may be needed to meet demand.

Further, records of PCI Coal usage in blast furnaces are commercial in nature and are available with concerned steel plants. National Steel Policy 2017 has projected demand of 30 MT PCI coal by FY2030 from present level of 17 MT.”

3.39 On being queried about the current demand for washed non-coking coal from the power sector and its comparison with the 58 MTPA capacity planned for new non-coking washeries and whether there is surplus capacity or additional capacity is needed, the

Ministry has stated as under:

“At present, there is no specific quantified demand for washed non-coking coal from the power sector. However, non-coking coal washing is needed to improve coal quality, reduce ash-related issues, support blending for high-efficiency plants, and ensure future readiness for plants that may require washed coal. CIL has planned to increase non-coking coal washing capacity from 21 MTY to 79 MTY by FY2032.
“

3.40 While furnishing information regarding the current usage of PCI coal in India's blast furnaces and the incremental demand by FY 2030 to justify capacity expansion for high-grade washeries, the Ministry has stated as under:

“PCI Coal usage in blast furnaces are commercial in nature and are not available with the Ministry of Coal. National Steel Policy 2017 has projected demand of 30 MT PCI coal by FY2031 from present level of 17 MT. PCI rate varies from 97 to 185 kg/thm in various steel producers. 150 kg/thm PCI rate was assumed in NSP-2017, with BF-BOF route@60-65% in 2030-31.

3.41 In its written reply regarding whether the Ministry has negotiated specific blending commitments from private power plants currently importing high-grade coal, the committed blending volume and timeline, and the estimated import substitution value if these commitments are fulfilled, the Ministry has stated as under:

“The Ministry of Coal is aware that certain power plants presently using imported coal have expressed interest in blending domestic coal subject to improvement in coal quality through beneficiation. In this regard, the Ministry has been engaging with stakeholders, including power producers and coal suppliers, to explore the feasibility of greater use of washed domestic coal as a substitute for imported coal.

Thermal power plants along the coast are technically designed to run on imported high-grade non-coking coal. Based on techno-commercial viability, 10 ICB plants were initially identified by CEA for blending the domestic coal with the imported coal which would result in part substitution of such imports to the extent of 13.2 MT. CIL has already offered domestic coal to such plants on trial basis. These plants are enabled to secure domestic coal linkages under Revised SHAKTI Policy 2025.”

3.42 Regarding the aggregate capex commitment 7 non-coking coal washeries with

58 MTPA capacity, the envisioned payback period, the financial arrangements being mobilised, and whether ring-fenced funding exists for these washeries or whether they compete for resources with other Ministry of Coal priorities, the Ministry has stated as under:

“For non-coking coal washeries, feasibility reports are under preparation stage for details including costing.”

C. AUGMENTING WASHED COAL PRODUCTION

a) Linking Coal Mines and Coal Washeries

3.43 Washeries cannot function optimally without consistent quality raw coal supply. Variability in grade, moisture content, and mine scheduling often disrupts washery utilisation. As regards the Mechanisms in place to ensure adequate supply of raw coking coal to the washeries and to avoid feed shortages, it was submitted as under:

“For each planned washery of CIL, raw coal linkages are firmed up at the planning stage, with identification of linked mines and indicative quantities to ensure sustainable operation for entire life of the washery. Mine production may be subject to revision due to changes in mine development schedules, statutory clearances, or geological conditions. In cases where long-term assured supply from a single mine is not feasible, multiple mines are linked to the washery to mitigate supply risks and maintain continuity of operations.

For private washeries, the Government has recently approved a policy (Coal SETU) for providing coal linkages to non-coking coal washeries. ‘Steel using Coking coal through WDO route’ is an existing sub-sector under the NRS linkage auctions for long-term coal linkage to the Steel Sector”.

b) Logistics and Transportation Infrastructure

3.44 All old washeries are well connected with Rail/Road and each of the new/ upcoming washeries of CIL shall be well connected with rail/road to avoid

any logistics issue. Ministry of Coal is working in close coordination with Ministry of Railways for requirement of railway connectivity for coal evacuation if any.

3.45 Adding further in this regard, it was stated in a written reply as under:

“All the washeries are being planned and implemented with dedicated rapid loading systems. Development of associated loading arrangements and logistics infrastructure, including rail connectivity, is being taken up simultaneously along with the construction of the washeries. Accordingly, the commissioning of each washery is being synchronized with the completion of its dedicated rapid loading system and evacuation infrastructure, so as to ensure seamless and efficient dispatch of coal upon commencement of operations.

All old washeries are well connected with Rail/Road and each of the new/upcoming washeries of CIL shall be well connected with rail/road to avoid any logistics issue. Plan of following new washeries of CIL where evacuation arrangement are delayed:

- Patherdih New Washery (5 MTY), BCCL. Timeline for completion is Mar-27.
- Dispatch of washed coal from the IB Valley washery, MCL will be entirely through upcoming Lakhanpur Phase-I SILO (10 MTY) which is targeted for commissioning by June'26 including associated rail connectivity”.

3.46 On being asked how the evacuation processes by the First Mile Connectivity Projects and PM Gati Shakti Master Plan in Coal sector has benefitted the washeries, it was submitted:

“The old washeries of CIL (both coking and non-coking) are generally not equipped with dedicated mechanized loading facilities. However, all upcoming washeries are being planned with dedicated mechanized loading systems, including rapid loading arrangements, to ensure efficient and reliable evacuation.

Although some of the current washeries do not have mechanized loading facilities, the strengthening of evacuation infrastructure and the expansion of mechanized coal loading through Indian Railways silos at

other CIL loading points have resulted in a significant improvement in dispatch performance. Dispatch through IR silos recorded an increase of about 42%, rising to an average of 103 rakes per day during FY 26, as compared to 72.7 rakes per day during the corresponding period of the previous year. This substantial growth reflects the positive impact of systematic infrastructure augmentation and improved operational coordination.

Further, FMC silos have also contributed to improved operational efficiency, reflected in the reduction of loading time to 3 hours 21 minutes from 3 hours 25 minutes during the corresponding period last year. With the increasing usage of silo loading, underloading charges declined by approximately 26% during 2025-26, reducing to ₹7.3 per tonne compared to ₹9.8 per tonne during the corresponding period of the previous year.

First Mile Connectivity (FMC) projects in CIL and the PM Gati Shakti framework have improved coal evacuation by shifting to fully mechanised, rail-centric systems that preserve coal quality, reduce losses/ spillage and make dispatch more weather-resilient. Loading of washed products through Rapid Loading System has improved turnaround time of rakes, fast loading, less demurrage, less human interference in loading resulting in quality consistency, less effect of weather, especially in rainy season due to covered transportation of coal through belt conveyor(s.)

3.47 The Committee observed that the Draft Coal Logistics Policy 2022 identified wagon shortage and congestion on rail networks as key constraints. So, they desired to know dedicated transportation infrastructure being created for new washeries. To this, in a written reply, it was informed as under:

“Washed coal evacuation has been planned and done through rapid loading system and rail network.

The output from the new coking coal washeries planned at CIL will be evacuated through rail mode, considering the available rail infrastructure and the prevailing evacuation pattern in these coal fields.

In the case of non-coking coal washeries, evacuation from planned three washeries, namely Balram–Hingula, MCL (15 MTPA), Integrated Kulda–Garjanbahal, MCL (12 MTPA) and Sonapur Bazari, ECL (5.5 MTPA), may be planned through rail–sea–rail (RSR) mode, based on projected demand and the relative cost efficiency of this mode of transportation.

Each washery is being designed with an in-built mechanized rapid loading system. The development of the corresponding loading and

logistics infrastructure, including necessary rail connectivity, is being carried out in parallel with washery construction. This coordinated implementation is aimed at ensuring that evacuation facilities are fully operational at the time of commissioning, enabling smooth and uninterrupted dispatch of washed coal”.

3.48 Regarding the integrated logistics plan for evacuating 80 MT of additional washed coal by FY 2030 through "First Mile Connectivity" projects , it was submitted that all new non-coking washeries of CIL (operational and to be constructed) having capacity 79 MT shall be equipped with mechanized coal receiving arrangement like BOBR track hopper and TRH and adequate rapid loading evacuation infrastructure (RLS).

3.49 Loading of washed products through Rapid Loading System has improved turn around time of rakes, fast loading, less demurrage, less human interference in loading resulting in quality consistency, less effect of weather, especially in rainy season due to covered transportation of coal through belt conveyor(s.)

3.50 Currently, 55% of coal is transported by rail. The target is to increase rail share to 75% by FY 2030. Regarding the timeline for increasing rail capacity to handle the additional washed coal volume without compromising existing coal evacuation schedules, it was submitted as under:

“The Ministry, in coordination with Indian Railways, is actively planning to increase rail capacity to support the target of raising coal transportation share to 75% by FY 2030.

Ministry of Coal identified 33 critical rail lines, and have been taken up for construction by Ministry of Railways by FY2030 to meet future coal evacuation demand including washed coal in country”.

3.51 In view of the information that coastal shipping is targeted to carry ~340 MT by 2025, generating Rs. 9,600 crores in savings, the Committee desired to know the quantum share of the additional 80 MT washed coal envisioned to move via coastal shipping, the reply was as below:

“For the projected 79–80 MT of washed coal by 2030 from new washeries, evacuation is generally planned through rail. However, transport of washed coal will depend upon demand centers, distance, and cost efficiency.

Considering proximity, Rail-Sea-Rail route coal evacuation is possible in Odisha. In the case of non-coking coal washeries, evacuation from planned three washeries, namely Balram–Hingula, MCL (15 MTPA), Integrated Kulda–Garjanbahal, MCL (12 MTPA) and Sonapur Bazari, ECL (5.5 MTPA), may be planned through rail–sea–rail (RSR) mode, based on projected demand and the relative cost efficiency of this mode of transportation”.

3.52 The existing port capacity at loading and unloading end for RSR transportation of coal as follows:

Loading Port

PORT	In FY2023	In FY2030
	Port Capacity for coal (MTY)	Port Capacity for coal (MTY)
Chennai	Nil	Nil
Ennore	26.0	44.0
Krishnapatnam	45.0	45.0
Tuticorin	45.9	45.9
New Mangalore	20.5	23.3
Dahej	14.0	21.0
Jaigad, Mumbai	28.0	35.0
TOTAL	179	214

Unloading Port

PORT	In FY2023	In FY2030
	Port Capacity for coal (MTY)	Port Capacity for coal (MTY)
Paradeep	74.2	86
Dhamra	7	20
Vizag	25	35
Gangavaram	4	3
Haldia	19	19
Gopalpur	5	5
TOTAL	134	168

3.53 Road transportation of coal accounts for 28% of coal movement today and the Committee was informed that there is no policy restriction to reduce road haulage dependence for coal washery evacuations.

c) Management of Washery Rejects

3.54 Year wise rejects produced and despatched at CIL is given below:

F.Y.	Reject Production in MT	Reject Despatch in MT
2020-21	0.50	0.22
2021-22	0.64	0.54
2022-23	0.70	0.58
2023-24	0.79	1.21
2024-25	2.06	1.44

The Washery Reject Policy dated 27.05.2021 mandates gainful utilisation of washery rejects, primarily in CPPs (Captive Power Plants)/ TPPs (Thermal Power Plants) and other eligible industries, with dumping in mine voids in environment-friendly manner, permitted only as a last resort. Coal companies are responsible for timely evacuation, scientific storage and compliance with MoEF&CC norms.

The Washery Reject Policy aims to ensure scientific, safe and gainful disposal/ utilisation of washery rejects generated from coal washeries, while minimising environmental and operational risks. The key policy thrusts are priority utilisation of washery rejects in power generation, preferably in FBC/CFBC-based power plants, cement plants, and other approved end uses.

However, the following operations and environmental challenges are there in implementing the Policy:

- Accumulation of washery rejects
- Limited acceptance by power sector
- Non-availability of FBC/CFBC power plants
- Environmental concerns due to long-term storage

The effectiveness of the Policy is usually measured on the basis of the following:

- Reduction in Surface Stock
- Percentage of Reject Utilisation increased
- Continuity of Washery Operations

3.55 Regarding the adequacy of the fines handling, slurry recovery, and reject utilisation technologies, it was stated as below:

“The new washeries are envisaged on zero discharge basis and no effluent is allowed to escape washery premises to meet MoEF&CC guidelines. Fines handling, slurry recovery and reject utilisation technologies in coal washeries are well-established and adequate to meet prevailing environmental norms. Modern washeries are equipped with high-efficiency fine coal circuits, including thickeners, hydrocyclones, and filter presses, which enable effective recovery of fine coal, high water recycling (often exceeding 85–90%), and near-zero liquid discharge”.

3.56 The Committee was further informed that MCL is exploring the opportunity to setup a FBC power plant using the rejects produced from Ib Valley Washery. It is at preliminary stage.

3.57 When the Committee desired to know the best global practice in washery reject management, the reply was as under:

- “Rejects are used for road construction, power generation through FBC power plants and preparation of briquettes etc.
- The best global practices for utilization of coal rejects are construction materials for highway, railway, dam, embankment, reclamation of land, and backfill of underground mined-out area”

3.58 The anticipated volume of rejects in tonnage terms for the new washeries, the prescribed disposal/utilization pathway (FBC power plants, cement kilns, road construction, etc.), the compliance tracking mechanism along with penalties for unauthorized or non-compliant reject disposal in the past 3 years are as under:

- “Anticipated volume of rejects to be generated at any washery is governed by the agreement between raw coal owner and the washery operator based on the quality of raw coal feed and the quality of washed coal to be generated during washing operation.
- During F.Y. 2024-25, CCO has issued permission for disposal of 12.21 Million Metric Tonnes washery rejects.
- As per “Policy for Handling and Disposal of washery rejects” issued by MoC on 27.05.2021, washery rejects shall be utilized in three different ways
- As a first priority, washery rejects shall be utilized for energy extraction at Thermal Power Plants (TPPs)/Captive Power Plants (TPPs) for generation of power and other permissible end uses.
- If the initiatives taken for energy extraction do not fructify, as a second priority, the washery rejects shall be utilized as replacement of construction materials (for highways, railways, dams, embankments etc.), reclamation of lands, brick making or any other alternative gainful use.
- If all initiatives taken above do not fructify, as a last option, the washery rejects shall be dumped in the mine voids or in low lying areas in environment friendly manner observing all precautions.
- CCO does not perform monitoring for compliance of environmental regulations and Solid Waste Management Rules 2016.
- No washery has been penalized under washery reject policy as the washery reject policy is not having any penal provision.”

3.59 Rejects disposal details in FY 2024-25 is as below:

1. Quantity of rejects permitted for energy extraction at thermal plants: 12.22 Million Metric Tonnes
Actual quantity disposed: 10.17 Million Metric Tonnes
2. Quantity of rejects permitted for use as construction material/reclamation: Nil
Actual quantity disposed: Nil
3. Quantity of rejects permitted for mine void filling: Nil
Actual quantity disposed: Nil

However, during 2022-23, a total of 4,99,994.71 T washery rejects were

dumped in mine void against permitted quantity of 5,00,000 T.

During 2025-26 (up to 30.01.2026), a total of 60,449.68 T washery reject was disposed as construction material/reclamation use against the permitted quantity of 1,30,000 T while 1,29,954 T reject was dumped in the mine void against the permitted quantity of 10,00,000 T.

There is no information available with the Ministry or CCO as regards rejects being dumped in fields or riverbeds in an unregulated manner.

At CIL, washery rejects are being disposed as per the policy issued by MoC. During the FY 2024-25, the Rejects disposed from CIL that had GCV greater than 1500 KCal/kg, were disposed through auction.

d) Water Management and Effluent Treatment

3.60 Coal washery water consumption ranges from 3-10 million tonnes per million tonnes of coal processed, as per global practice. Water consumption norms mandated for the 8 new coking coal washeries is as below:

- Non-coking coal: 0.085 m³ per tonne of raw coal.
- Coking coal: 0.16 m³ per tonne of raw coal.

Source of water for washery is mine water from nearby coal mines.

Monitoring mechanism: Washery wise half-yearly compliance report complying EC conditions are being submitted to State Pollution Control Board.

3.61 On being asked about the norms for water recycling, zero-discharge, and environmental compliance for washeries especially in water-stressed coalfield regions, the Committee were informed that there are no targets or norms for washeries especially in water-stressed coalfield regions. All new washeries have been envisaged to recycle water, ensure zero-discharge and comply with environmental norms.

3.62 When asked about dry beneficiation which avoids the water

consumption and effluent challenges of wet washing, and the Ministry's concrete roadmap for scaled deployment of dry beneficiation, the reply was as under:

“The dry beneficiation technologies available worldwide are mainly Air Jigs, Air Table and X-ray sorter. Apart from Air jigs, none of the dry beneficiation technologies is commercially proven on Indian coals. Also, the maximum capacity of the Air Jig available at commercial scale is of 50 tph. Globally, dry beneficiation technology is generally used in beneficiation of non-coking coal. The capacity of coming projects of non-coking coal washeries are having capacity greater than 5.0 MTPA, hence proposing dry beneficiation technologies which are not commercially proven on Indian coal, is not feasible. Therefore, scaling up projects of such technologies are being taken up under R&D route”.

e) Environmental and forest clearances

3.63 Details of coking coal mines of CIL that are to be operationalized by FY 2030 along with EC and FC status is given below:

Sl. No.	SUB	Name of mine	Capacity (MT)	Tentative Year of commencement	Mode	EC Status	FC STATUS
1	BCCL	NGKC UG	1.20	2028-29	MDO	Mine plan under preparation, EC will be obtained by March 2028	At present, mining plan excluding forest land have been prepared.
2	BCCL	Bhowra UG	0.36	2028-29	MDO	EC available	NA
3	BCCL	Block D	6.00	2029-30	To be decided	Mine plan under preparation, EC will be obtained by March 2028	At present, mining plan excluding forest land have been prepared.
4	BCCL	Block E	15.00	2028-29	Outsourcing	Mine plan under preparation, EC will be obtained by March 2029	At present, mining plan excluding forest land have been prepared.
5	BCCL	Block F	13.00	2029-30	To be decided	Mine plan under preparation, EC will be obtained by March 2029	At present, mining plan excluding forest land have been prepared.
6	BCCL	Kalyaneshwari OC	4.00	2029-30	MDO	EC available	NA
7	BCCL	Pure Benedih UG	1.92	2026-27	MDO	EC available	NA

Sl. No.	SUB	Name of mine	Capacity (MT)	Tentative Year of commencement	Mode	EC Status	FC STATUS
8	BCCL	ASGKCC	1.40	March'26	MDO (Revenue Sharing)	EC available	NA
9	BCCL	Kharkhare	1.20	March'26	MDO (Revenue Sharing)	EC available, EXPANSION OF EC WILL BE OBTAINED BY 2026-27	NA
10	BCCL	Madhuband	1.50	2027-28	MDO (Revenue Sharing)	EC available, EXPANSION OF EC WILL BE OBTAINED BY 2026-28	NA
11	BCCL	Amlabad	0.30	2027-28	MDO (Revenue Sharing)	Mine plan under preparation, EC will be obtained by March 2027	At present, mining plan excluding forest land have been prepared.
12	CCL	AAD Highwall	0.50	2026-27	MDO	EC issued for Amlo OCP & Highwall on 08.04.2025 for a capacity of 3.6 MTY.	No FC issues.
13	CCL	Pundi OCP	5.00	2029-30	Outsourced	Final EIA/EMP of Pundi OCP (Capacity: 5 MTY, Area: 774.26 Ha) submitted to MoEF&CC on 29.03.2025 under violation category. EDS raised on the proposal on 04.04.2025. Supreme Court order on 16.05.2025 prohibits issuance of post-facto EC including EC applied under violation category As of February 2026, the issue is currently under review by a larger bench of the Supreme Court. Vide OM dated: 20.01.2026, MoEF&CC has allowed processing of application, however final order granting approval shall not be issued till further orders of Hon'ble Supreme	NoC of GMJJ land is a prerequisite for obtaining Stage I FC. There is 294.03 Ha GMJJ land involved in Pundi OCP. CCL made payment of Rs 550 Crores to State Government towards NoC of GMJJ as per their demand dated 01.09.2021. However, NoC of GMJJ was not issued. Revised demand of Rs. 2484 Crores was raised by State Government. As per this demand, further Rs 1934 Crores is to be paid, which is more than sanctioned capital of Pundi OCP i.e. 713 Crores.

Sl. No.	SUB	Name of mine	Capacity (MT)	Tentative Year of commencement	Mode	EC Status	FC STATUS
						Court. EC to be issued after vacation of order prohibiting issuance of post-facto EC and grant of Stage-I FC	
14	CCL	Swang-Piparadih OCP	2.00	2029-30	Outsourced	EC to be applied after preparation of revised Mining Plan and issuance of CO, DFO (Territorial) and DFO (Wildlife) Certificate	Land Schedule Authentication is under process for making FC application.

f) Coal Controller's Organization (CCO)

3.64 The Coal Controller's Organisation is a Subordinate Office of the Ministry of Coal & Mines, Department of Coal, having its headquarters at Kolkata and field offices at Dhanbad, Ranchi, Bilaspur and Nagpur. Coal Controller Organization (earlier Coal Commissioner), established in 1916, is one of the oldest offices in Indian Coal sector. The Coal Controller Organization is headed by Coal Controller.

3.65 The Coal Controller discharges various statutory functions derived from the under noted Acts and Rules:

- Colliery Control Order, 2000.
- Coal Mines (Conservation & Development) Act, 1974 and Coal Mines (Conservation & Development) Rules, 1975.
- The Collection of Statistics Act, 1953(32 of 1953) and the Collection of Statistics (Central) Rules, 1959.
- Coal Bearing Areas (Acquisition & Development) Act, 1957(20 of 1957).

3.66 Apart from the above, the Coal Controller has been assigned some functions under the Mines and Minerals (Regulation & Development) Act, 1957.

3.67 In addition to above statutory functions, the Coal Controller has also to discharge the following responsibilities:

- to look after the residual work of the erstwhile Coal Board.
- to attend to legal matters/ court cases arising out of the various statutes which the Coal Controller has been made responsible to administer.

3.68 The CCO provides the permission for disposal of Washery reject under the policy: CCT-13011/3/2007/CA-I (Vol-III); Dated: 27-05-2021.

3.69 During the Briefing, the representative of the Ministry elaborated upon the role of CCO in the management of washery rejects and stated as under :

“As far as the washing is concerned, the power of the Coal Controller Organisation is actually restricted to the disposal of rejects. The material that is rejected, having a GCV of 2200 after washing, is actually called 'rejects' and anything above that, is actually considered as coal. The material with a GCV of less than 2200, that needs to be disposed.”

-----X-----X-----X-----

“But as far as the washery is concerned, the setting up of a washery and other things are regulated by the States' laws and the consent to operate it is actually given by the State Pollution Control Board. So, to the extent, of what yield is to be there or what kind of an environment and other things have to be followed, are all regulated by the State Government and other industry norms. The Coal Controller Organisation is restricted to the disposal of the rejects and that is also for these three aspects. How it can be actually used for the meaningful purpose and in consonance with the policy issued by the MoEFCC”

3.70 About CCO's supervisory role and compliance Monitoring, it was submitted as under in a written response:

- “As per “Policy for Handling and Disposal of washery rejects” issued by MoC on 27.05.2021 CCO is having very limited role.
- CCO works merely as facilitator and issues permissions for disposal of washery rejects, having GCV less than 2200 Kcal/Kg.
- CCO has no role in production targets for washeries and does not monitor the quality compliance of the washery products.

- MOEFCC issues Environmental Clearance to Washeries for setting up washeries and washeries are established under factories act with permission of concerned state authorities.
- For operation of washery, CTO is issued by State Pollution Control Board.
- Yield of washery products is decided by washery operator based on the washing requirement and CCO has no role to play in this regard also.
- Transport permit for movement of raw coal as well as washery products is issued by the District Mineral Officer of the concerned state.
- CCO only issues the permission of disposal of washery rejects to end users based on the application made by Owner/Deemed owner of the rejects.
- CCO only verifies that the end-user of the rejects possesses the valid environmental clearance/permits for its use, which is done by verifying the CTO issued by concerned state Pollution Control board. While issuing permissions,
CCO cross checks the GCV criteria of the washery rejects by sampling and analysis of the rejects.
- As a part of monitoring, surprise inspections of washeries are conducted frequently by the concerned regional office of the CCO.
- CCO does not conduct any onsite audit at CIL and Private washeries.
- While issuing permission for disposal of washery rejects CCO officials from the concerned regional office, inspects the washery and draw monitoring samples for cross verification of GCV of the washery rejects to be disposed off.
- As per washery reject policy, CCO is not having enforcement power to impose penalties as there is no penal provision in the washery reject policy.
Not applicable, as there is no penal provision in the washery rejects policy.
- Real time monitoring of washery production, capacity utilization, quality parameters etc. does not come under the purview of the disposal by the CCO.
- However, CCO receives monthly return from the reject owner/Deemed owner of the washery rejects to whom permission for disposal of washery rejects are issued, in the prescribed format through email.”

3.71 In the context of the submission that the CCO has no role in production targets for washeries or does not monitor the quality compliance of the washeries, the Committee desired to have clarity on the surprise inspections of washeries conducted by regional offices of the CCO. The reply was

as below:

- “Policy for handling and disposal of washery rejects was issued by the Ministry of Coal (MoC) on 27.05.2021 and subsequent amendment was done in December 2025. Information on disposal of washery rejects is to be submitted by Owner of the mine to CCO in a specified format.
 - CCO has no role in issuing the permission for establishment, operation and day to day affairs of coal washeries. Coal for washing to the washeries is issued by the raw coal owner.
- During 2023-25 (up to December 2025), 228 surprise inspections were conducted to the washeries which were issued permissions from CCO for disposal of rejects under Policy for handling and disposal of rejects issued by MoC. Out of 228 inspections, during 216 inspections reject samples were collected (one reject samples during each inspection) for cross verification of rejects being produced/ dispatched at the washery. In 3 samples/ inspections rejects were found to have GCV less than the permitted range and in 2 samples/ inspections, rejects were found having GCV more than the permitted range”.

3.72 The Committee have been informed that following the December 2025 amendment to the Washery Reject Policy, companies are now empowered to self-certify the calorific value of rejects and submit information to CCO rather than seeking prior permission. This is a significant relaxation of oversight. When the Committee desired to know the safeguards put in place to prevent misclassification of usable coal as 'rejects' for disposal, which would be economically and environmentally harmful, it was submitted as under:

“The Ministry of Coal amended the Washery Reject Policy in December 2025 with the objective of simplifying procedures and promoting Ease of Doing Business, while ensuring adequate safeguards against misuse. Under the revised framework, companies are permitted to self-certify the calorific value of washery rejects and furnish the relevant information to the Coal Controller’s Organisation (CCO). However, the policy continues to mandate adherence to the prescribed norms and guidelines regarding sampling, testing and reporting of coal quality.

Earlier, based on the application of the reject owner/ Deemed Owner, permissions were issued by CCO for three months and before issuing permissions, at least three representative samples were to be collected by CCO and analyzed to cross-check the GCV of the rejects to be dispatched.

After amendment of the washery reject policy, letter has been issued stating that information for disposal of washery rejects should be submitted to the CCO in the prescribed format (issued by the CCO) every three months along with the test report of at least three

representative samples of rejects to be dispatched in the upcoming three months”.

The manpower position in CCO is as under:

Position of manpower of CCO as on 30.11.2025					
Manpower	Group A	Group B		Group C	Total
	Gazetted	Gazetted	Non Gazetted	Non Gazetted	
New Sanctioned	43	31		56	130
In Position	05	18		24	47

Ministry of finance (Department of expenditure has approved 130 posts of CCO under cadre restructuring of CCO vide note dated 20.10.2023.

3.73 Regarding the steps that are being taken to fill vacancies in CCO, build specialized technical capacity in coal beneficiation and environmental monitoring, and equip regional offices with modern sampling and data-analytics tools, it was stated as under:

“Presently, at CCO regional offices/HQ, there is no specialized technical capacity as regards coal beneficiation and environmental compliance for undertaking comprehensive audits of washery performance or environmental compliance. Further, CCO offices including HQ, do not possess any sampling and data analytics tools.

As per cadre structuring of CCO, total sanctioned strength of CCO is 130. Status of filling of vacancies at CCO is annexed as Annexure-2.

Under provisions of Coal SETU, grant of coal linkage to washeries has been enabled. While granting linkage, adequate safety provisions will be incorporated to ensure that there are adequate safeguards as regards washery operations. In case need is felt, the Ministry may utilize the services of CCO. However, as stated earlier, CCO does not have specialized technical capability as regards coal beneficiation”.

g) Role of various Agencies

3.74 The Committee have observed that multiple institutions share responsibility with respect to coal washing and related aspects in the country, viz., MoC for

policy, MoEFCC and State PCBs for environmental clearance and CTO, CCO for reject permissions, district authorities for transport permits, and PSUs/private operators for day-to-day operations. When the Committee desired to know the views of the Ministry on having a single integrated digital platform that captures real-time data on washery production, capacity utilization, product quality (ash, GCV), water consumption and reject disposal, accessible to regulators and the public, the response was as under:

“The Ministry of Coal recognizes that regulation of coal washeries involves multiple authorities, including the Ministry of Coal for policy, the Coal Controller’s Organisation for coal quality oversight, and environmental regulators such as the Ministry of Environment, Forest and Climate Change and State Pollution Control Boards for environmental compliance. At present, monitoring is undertaken through the existing regulatory and reporting mechanisms of the respective authorities. The Ministry is continuously working towards strengthening digital governance and improving data sharing among regulators through existing digital platforms to enhance transparency and monitoring. Further steps to streamline data integration and coordination among agencies are being explored to address potential data gaps and ensure effective regulatory oversight”.

PART-II

OBSERVATIONS / RECOMMENDATIONS OF THE COMMITTEE

1. NEED FOR ACCELERATED COAL BENEFICIATION TO IMPROVE DOMESTIC COAL QUALITY AND SUPPORT AATMANIRBHAR BHARAT

The Committee note that while India has achieved one billion tonnes of coal production for second year in a row and remains the world's second largest producer and consumer of coal, the quality of domestic coal continues to be a major challenge due to its high ash content. Due to its low gross calorific value, it affects combustion efficiency, equipment performance and environmental outcomes. The Committee further note that due to low availability of domestic coking coal, the high ash content coal with poor coking properties is not suitable to be used independently in steel production and therefore must be washed and blended with high grade low ash coal, resulting in continued dependence on imports. In view of the fact that coal washing is essential for improving coal quality, enhancing efficiency in power generation and industrial use, reducing environmental impacts and enabling greater utilization of domestic coal resources across the power, steel, cement and emerging coal gasification sectors, the Committee recommend that the Ministry of Coal accord high priority to coal beneficiation and prepare a time bound strategy for further expanding and modernizing coal washery infrastructure so as to increase the availability of quality washed coal for key consuming sectors.

(Recommendation No.1)

2. DEMAND-SUPPLY OF WASHED COKING COAL AND NATIONAL STEEL POLICY TARGETS

The Committee note that the National Steel Policy, 2017 envisages crude steel production capacity of 300 MT by FY 2030-31, which is expected to substantially increase the demand for coking coal and washed coking coal.

The Committee further note that the Government has undertaken initiatives under Mission Coking Coal, including expansion of washery capacity, promotion of stamp-charging technology and provision of long-term coal linkages to enhance the availability and use of domestic coking coal in steel production. The Committee are of the opinion that in view of the projected requirement of coking coal and washed coking coal by FY 2030, continued and

coordinated efforts to progressively augment the domestic washed coking coal production and increase its blending in steelmaking are necessary. The Committee, therefore, recommend that the Ministry of Coal, in close coordination with the Ministry of Steel and other stakeholders, evolve a comprehensive and time-bound strategy for improved domestic washed coking coal availability, strengthening washery infrastructure and facilitating enhanced use of domestic coking coal in the steel sector to support reduction in import dependence and advance the objectives of Aatmanirbhar Bharat in the coal and steel sectors.

(Recommendation No.2)

3. MISSION COKING COAL: A STRATEGIC ROADMAP FOR EXPANDING DOMESTIC COKING COAL PRODUCTION, WASHERY CAPACITY AND STEEL SECTOR BLENDING

The Committee note that Mission Coking Coal was launched by the Ministry of Coal to meet the domestic coking coal demand projected in the National Steel Policy, 2017. The Mission aims to augment domestic raw coking coal production to 140 MT by 2030, increase domestic coal blending from 10-12% to 30-35% and raise the washing capacity from present 30 MTPA to 58 MTPA and explore more coking coal blocks for auction. The Committee further note that the Mission envisages operationalization of new coking coal mines, establishment of eight new coking coal washeries, revival of ageing washeries, and coordinated efforts by Coal India Limited, steel producers and other stakeholders to reduce the country's dependence on imported coking coal. The Committee appreciate the integrated nature of the Mission Coking Coal considering it a critical pillar for strengthening domestic coal beneficiation and enhancing value addition to indigenous resources. The Committee hope that the Ministry will conduct periodic reviews under the Mission Coking Coal in order to achieve its clearly defined targets.

(Recommendation No.3)

4. COALSETU: ENABLING ASSURED COAL LINKAGES AND FLEXIBLE UTILISATION TO STRENGTHEN COAL BENEFICIATION

The Committee note that the CoalSETU (seamless, efficient & Transparent utilization of coal) window represents a significant reform in the coal sector by introducing a flexible auction-based coal linkage framework for the Non-Regulated Sector without end use restrictions, while also extending linkage support to coal washeries. The Committee further note that under the CoalSETU, coal linkage holders can use coal for own consumption or any other purpose including coal washing except resale of raw coal in the country, however, they

are permitted to sell washed coal domestically and will be eligible to export 50% of washed coal from their linkage quantity. The Committee appreciate the provision of coal linkages to operators, as assured long term availability of raw coal will also help improve washery capacity utilization, investment viability and production of washed coal. The Committee hope that CoalSETU will catalyse investments in coal beneficiation infrastructure, provide operational flexibility to coal linkage holders, improve utilization of existing and upcoming washeries, increase availability of quality washed coal for domestic consumers and will reduce dependence on imported coal. The Committee also hope that the Ministry while ensuring expeditious operationalisation of CoalSETU will closely monitor its compliance. The Committee would like to be apprised of the monitoring mechanism in this regard.

(Recommendation No.4)

5. EXISTING WASHERIES OF CIL AND THEIR ROLE IN MEETING WASHED COAL DEMAND

The Committee note that Coal India Limited (CIL) occupies a central position in India's coal beneficiation ecosystem and is the principal domestic supplier of washed coking coal to the steel sector. At present, CIL operates 10 coking coal washeries with a combined operational capacity of 18.35 MTPA and 3 non-coking coal washeries with a capacity of 21 MTPA, accounting for a significant share of the country's public sector coal washing infrastructure. Overall, India has 81 washeries with a combined capacity of 241 MTPA. The Committee observe that in the financial year 2024-25, CIL's raw coking coal production stood at 59.66 million tonnes, with raw coal feed to washeries at 7.99 million tonnes, resulting in washed coking coal production of 2.42 million tonnes. Since domestic washed coking coal production remains below demand, the country continues to rely on imports, with over 56 million tonnes of coking coal imported during the year. Although there is currently no quantified demand for washed non-coking coal from the power sector, the Committee further note that Coal India Limited has planned a significant expansion of non-coking coal washing capacity from 21 MTPA to 79 MTPA by FY 2032. Thus, it is seen that the Ministry has embarked upon significant capacity augmentation and infrastructure development initiatives. While appreciating these efforts, the Committee are of the view that the planned expansion of washery infrastructure will substantially improve the availability of quality washed coal, enhance value addition to domestic coal resources, and advance the objectives of energy security and import substitution.

(Recommendation No. 5)

6. UPGRADATION OF WASHERIES

The Committee are apprised that the current capacity and supply of coking coal washeries

of CIL is 18.35 MTY and 2.41 MTY (approx.) respectively. Against the installed capacity of 18.35 MTPA, CIL has actually produced 3.59 MT of washed coking coal. The Committee are informed that the major reasons for difference between the capacity and actual production include difference in quality of raw coal supplied as compared with the design of the washeries and old washeries operating below rated capacity due to ageing equipment and inadequate or delayed supply of linked raw coal from mines. The Committee are also apprised that many washeries of CIL have already outlived their designed operational life and are facing challenges due to legacy technology. While appreciating the initiatives undertaken by Coal India Limited for the revival, renovation and expansion of washery infrastructure, the Committee are of the view that timely modernization of ageing washeries will improve performance of washeries and will help in better alignment of raw coal quality with washery design specifications, and removal of logistical constraints so as to maximise utilisation of existing assets and enhance the availability of washed coal for the steel sector. The Committee, hence, urge the Ministry of Coal to closely monitor the implementation of these measures and strive for timely completion of modernization/ revival of existing projects.

(Recommendation No. 6)

7. ADOPTION OF ADVANCED COAL WASHING TECHNOLOGIES AND GLOBAL BEST PRACTICES

The Committee note that coal beneficiation technologies deployed globally have evolved significantly, with major coal producing countries such as Australia, United States, China, South Africa, Russia and Poland adopting a combination of advanced dense-media separation systems and emerging dry beneficiation technologies to improve coal quality, maximise recovery and optimize resource utilization. The Committee note that while Indian washeries presently employ a mix jigs, dense-media separation systems and flotation technologies, substantial scope remains for improving recovery efficiency, reducing ash content, enhancing fine coal recovery and increasing overall beneficiation performance. The Committee also observe that countries such as South Africa have successfully integrated coal washing with productive utilization of middlings and other byproducts, while China and the United States have scaled up coal washing capacity to support environmental objectives, resource efficiency and quality enhancement. The Committee are of the view that in the context of India's high ash coal reserves, growing demand for quality coal and the objective of reducing import dependence, technology led transformation of the coal beneficiation sector is imperative. The Committee, therefore, would like the Ministry to explore a technology adoption roadmap for the coal washing sector, incorporating phased deployment of advanced beneficiation technologies and promotion of next generation dry beneficiation systems.

(Recommendation No.7)

8. EFFICIENCY BENCHMARKING AND TECHNOLOGY UPGRADATION

The Committee note that only a limited number of washeries are presently achieving the prescribed organic efficiency benchmark of 95 per cent, while several older washeries are performing less than their capacity due to technological obsolescence. The Committee also note the Ministry's initiative to undertake benchmarking studies with leading coal producing countries to identify global best practices in washery operations. The Committee suggests that assessments with clearly defined timelines, performance benchmarks and accountability mechanisms may be carried out, so as to improve recovery yield, operational efficiency and quality of washed coal across all washeries in the country.

(Recommendation No. 8)

9. ROADMAP 2030: STRATEGIES TOWARDS INDIA'S COKING COAL SECURITY

As per the National Steel Policy 2017 and Mission Coking Coal, the total coking coal requirement by FY 2030 is projected at 161 MT. The Committee note that the roadmap for expanding coking coal washing capacity envisages 18 coking coal washeries, comprising 10 existing washeries, 8 additional new washeries, renovation of 4 old washeries and monetisation of 3 old washeries, while 7 additional non-coking coal washeries are targeted for completion by FY 2032. The Committee understand that year-wise projections for CIL indicate washed coking coal production rising by FY 2029-30 and also that the Ministry plans to increase domestic coking coal blending from 10% to 30% by FY 2030 through wider adoption of stamp-charging technology and yield potential cost savings. To attain the FY 2030 roadmap targets for washed coking coal production and the country's coking coal security, the Committee suggest that the Ministry may ensure a time bound implementation of the FY 2030 roadmap through robust monitoring mechanism to track subsidiary wise progress against targets on an annual basis, so as to progressively advance towards the objective of India's coking coal security.

(Recommendation No. 9)

10. TECHNOLOGY UPGRADATION AND STAMP-CHARGING ADOPTION IN COAL WASHERIES

The Committee note that all new washeries have been designed on state of-the-art technology such as Froth Flotation and Dense Media Cyclone, and that the eight new coking coal washeries are being set up using proven heavy media cyclone (HMC) technology, while

the Ministry of Coal and Coal India Limited are simultaneously evaluating and piloting technology enhancements. The Committee also note that CIL has collaborated with IIT, Hyderabad for setting up a pilot plant with advanced beneficiation technologies. The Committee further note that the Ministry plans to increase domestic coking coal blending from 10% to 30% by FY 2030 through wider adoption of stamp charging technology which is expected to reduce import dependence and yield potential cost savings. The Committee observe that dry washing pilot projects are at various stages and a dry washing plant is being considered for BCCL. The Committee, therefore, suggest that the Ministry pursue a time bound roadmap for scaling up advanced beneficiation and dry washing technologies beyond the pilot/R&D stage and ensure close coordination with steel mills to achieve the targeted 30% stamp charged coking coal blending by FY 2030.

(Recommendation No.10)

11. EXPORT POTENTIAL AND VALUE ADDITION THROUGH WASHED COAL

The Committee are informed that the exports of washed coal from India are presently nil, as domestic requirements of the power and steel sectors are accorded priority. The Committee note that with the planned expansion of washery capacity and improvement in coal quality, opportunities may emerge for accessing limited export markets, particularly in neighbouring Asian countries, after meeting domestic demand. The Ministry further stated that the growing coal gasification and coal based chemical sectors are expected to create additional domestic demand for high grade washed coal and the ongoing expansion of coal beneficiation infrastructure has the potential not only to strengthen domestic energy and industrial sectors but also to create opportunities for selective exports of quality washed coal in the future. The Committee, therefore, hope that the Ministry expedite the assessment of export potential of washed coal to neighbouring countries and formulate a long-term strategy for export after meeting domestic demand of the power and steel sectors.

(Recommendation No. 11)

12. WASHERY AUGMENTATION PLAN OF COAL INDIA LIMITED (CIL)

The Committee are informed that Coal India Limited (CIL) is implementing an ambitious washery augmentation programme comprising 8 new coking coal washeries with a combined capacity of 21.5 MTPA, monetisation of 4 old washeries with 6.73 MTPA capacity, and renovation of 2 ageing washeries to improve beneficiation capacity and operational efficiency. To ensure adequate raw coal availability, CIL is also pursuing the revival and operationalisation of 11 discontinued coking coal mines, while leveraging about 2 MTPA of idle private sector washery capacity through collaboration with companies such as Tata Steel. In addition, CIL has identified 7 locations for new non-coking coal washeries with a combined capacity of about 54 MTPA to cater to the future requirements of the power and

industrial sectors. While appreciating the comprehensive capacity augmentation strategy being pursued by CIL, the Committee expects the Ministry to ensure timely implementation of the planned washeries, mine revival projects and private sector partnerships through close monitoring and periodic review.

(Recommendation No. 12)

13. PRIVATE SECTOR PARTICIPATION AND TIMELY COMPLETION OF NEW WASHERIES

The Committee note that Coal India Limited is establishing new coking coal washeries through the Build, Own and Operate (BOO) and Build, Operate and Maintain (BOM) models to leverage private sector investment, technology and operational expertise for enhancing domestic coal beneficiation capacity. While two projects—Bhojudih and Patherdih-II—are at advanced stages of implementation, the remaining washeries are at various stages of development and are expected to significantly strengthen the availability of washed coking coal for the steel sector. The Committee are informed that the enforcement mechanisms available with the Ministry against the defaulting contractors include liquidated damages, recovery from running bills, invocation of performance bank guarantees, contract termination, re-tendering, and recovery of excess completion costs, etc. The Committee further note that private sector participation has been encouraged through relaxed eligibility criteria and incentive based contractual provisions, with an estimated investment of about Rs.2200 crore in BOO projects. The Ministry has also indicated that the projects are expected to be financially viable with a payback period of 1.5 to 2 years, subject to assured raw coal supply and optimal capacity utilisation. The Committee hope that the Ministry of Coal maintain close oversight of project execution, and ensure effective coordination among all stakeholders so that the targeted washery capacity is commissioned within the envisaged timelines.

(Recommendation No. 13)

14. MONETISATION OF EXISTING WASHERIES

The Committee note that four old washeries of Coal India Limited, viz. , Dugda, Sudamdih, Madhuband and Mahuda, collectively offering 6.73 MTPA capacity, are being monetised through private sector partnerships with the objective of optimising utilisation and bringing modern technology. While the monetisation tender for Dugda Washery has been finalised, the tender for Sudamdih Washery has not attracted adequate participation and efforts are being made to broaden bidder interest. In the case of Madhuband Washery, monetisation could not proceed due to land related constraints and the washery is now proposed to be renovated for improving performance. The Committee note that monetisation of existing washeries offers an opportunity to leverage private sector expertise, modern technology and investment for improving the performance of ageing washery assets. The Committee

appreciate the progress made in finalising the monetisation of Dugda Washery and hope that the Ministry of Coal continue its efforts to facilitate wider participation in the monetisation process and expedite implementation of approved projects.

(Recommendation No. 14)

15. RENOVATION AND MODERNISATION OF AGEING WASHERIES

The Committee note that two old washeries are being renovated by CIL to improve washing capacity, and operational efficiency. The Ministry has acknowledged that CIL washeries are 30-40 years old and deliver washed coal yields of roughly 30 per cent as compared to about 45 per cent in private washeries, largely due to technology obsolescence and difficult washability of Indian coking coal. The Committee further note that renovation and technology upgradation are therefore being pursued to enhance performance and extend the operational life of these assets. Madhuband Coal Washery is being taken up departmentally. The Committee understand that renovation of ageing washeries is a cost-effective approach for improving washed coal recovery and enhancing the performance of existing infrastructure. The Committee, suggest that the Ministry may monitor the ongoing renovation of Moonidih Coal Washery and expedite the renovation of Kedla Washery and Madhuband Coal Washery as per the departmental plan by according priority to their modernization through adoption of contemporary beneficiation technologies and best operational practices. The Committee hope that such initiatives will improve recovery yields, enhance operational efficiency and strengthen the contribution of domestic washeries towards meeting the growing demand for quality washed coal.

(Recommendation No. 15)

16. UTILISATION OF IDLE PRIVATE SECTOR WASHERY CAPACITY

The Committee note that though substantial washery capacity has been created in the private sector over the years, a significant portion of this capacity remains underutilised or idle due to factors such as inadequate availability of suitable raw coal linkages, fluctuations in demand for washed coal, commercial viability concerns, and operational constraints. The Committee are informed that the BCCL-Tata Steel collaboration produced 0.75 MT of washed coal in FY 2024-25 by utilising idle private washery capacity, representing a practical and replicable model for augmenting washed coal supply without awaiting completion of new greenfield capacity. The Committee also note that there are 68 operational non-CIL washeries with a substantial combined capacity and that a Committee has been constituted under Additional Secretary (Coal) to look into the possibility of utilisation of idle washing capacity. Further the Ministry has stated that similar collaboration is possible for washed non coking coal if power plants require additional supply, through the existing system for utilising idle

washing capacities. In view of the fact that the existence of idle beneficiation infrastructure represents an underutilised national asset when the country is seeking to rapidly improve washed coal availability and minimise dependence on imported coking coal, the Committee suggest that the Ministry expeditiously assess the availability of idle capacity across private washeries and formulate a framework for greater public private collaboration. The Committee also wish to be apprised of the findings of the Committee constituted by the Ministry and the steps taken to scale up the BCCL Tata Steel model of utilising idle private washery capacity.

(Recommendation No. 16)

17. DEVELOPMENT OF NON-COKING COAL WASHERIES FOR THE POWER AND INDUSTRIAL SECTORS

The Committee are informed that CIL has planned to increase non-coking coal washing capacity from 21 MTY to 79 MTY by FY 2032 through 7 planned non-coking coal washeries with an aggregate capacity of 58 MTPA with a realistic timeline of FY 2032 for operationalising all 7 washeries. The Committee also note that the washed coal from most planned non-coking coal washeries is planned to be supplied to thermal power plants and the steel sector for use as PCI coal. The Committee further note that though at present there is no specific quantified demand for washed non-coking coal from the power sector, the National Steel Policy 2017 has projected demand for PCI coal to rise, and that 10 import-based coastal power plants identified by CEA for blending domestic coal with imported coal have been enabled to secure domestic coal linkages under the Revised SHAKTI Policy 2025. The Committee feel that the risks which could defer commissioning of non-coking coal washeries beyond FY 2032 include availability of hindrance-free land and timely grant of statutory clearances. While noting with satisfaction the Ministry's plans for establishing substantial non-coking coal washing capacity to support the power, steel and coal gasification sectors and to address the growing demand for higher quality coal in industrial applications, the Committee recommend that the Ministry of Coal expedite the preparatory activities relating to land acquisition, statutory clearances and project development so that the envisaged washery capacity is commissioned within the targeted timeframe.

(Recommendation No. 17)

18. PRIORITISING ESTABLISHMENT OF PITHEAD BASED WASHERIES

The Committee note that a significant number of existing coal washeries are located away from pitheads, necessitating the transportation of raw coal containing high levels of ash over considerable distances prior to beneficiation. The Committee note that such an arrangement results in enhanced logistics costs and additional burden on rail and road infrastructure. The Committee also note that pithead beneficiation enables removal of ash and impurities closer to the source of production, thereby improving transportation efficiency, lowering emissions associated with coal movement and enhancing the overall

economics of coal utilisation. The Committee, therefore, urge upon the Ministry to accord priority to the establishment of new washeries at or near pitheads and, wherever feasible, align future washery development with mine expansion plans and first mile connectivity infrastructure.

(Recommendation No. 18)

19. COAL EVACUATION INFRASTRUCTURE FOR WASHERIES

The Committee note that the locations of existing and upcoming washeries are determined based on a combination of factors such as availability of suitable land, proximity to coal reserves, rail and road connectivity, water and power availability and integration with existing infrastructure, and that most washeries are not located at mine pithead due to land constraints, forest and rehabilitation issues and limited water availability near mining areas. The Committee are informed that the output from new coking coal washeries planned at CIL will be evacuated through rail mode, while evacuation from the three planned non-coking coal washeries, namely Balram–Hingula, Integrated Kulda–Garjanbahal, and Sonepur Bazari may be planned through rail–sea–rail (RSR) mode based on projected demand and cost efficiency. The Committee are also informed that all new non-coking washeries of CIL having a capacity of 79 MT shall be equipped with mechanized coal receiving arrangements and adequate rapid loading evacuation infrastructure. The Committee note that the Ministry, in coordination with Indian Railways, is actively planning to increase rail capacity to support the target of raising coal transportation share to 75% by FY 2030, having identified 33 critical rail lines for construction by Ministry of Railways by FY 2030. The Committee suggests that the Ministry may continue coordinated efforts towards timely completion of the 33 identified critical rail lines and rail connectivity projects for new and upcoming washeries, which will enhance rail-centric evacuation for washed coal in a time-bound manner.

(Recommendation No. 19)

20. FIRST MILE CONNECTIVITY PROJECTS AND PM GATI SHAKTI FRAMEWORK IN IMPROVING COAL EVACUATION EFFICIENCY

The Committee note that First Mile Connectivity (FMC) projects in CIL have improved coal evacuation efficiency by shifting to fully mechanised, rail centric systems that preserve coal quality, reduce losses and spillage and make dispatch more weather resilient. The Committee also note that dispatch through Indian Railways silos recorded an increase wherein the loading time has reduced and underloading charges have declined. The Committee further note that each washery is being designed with an in built mechanized rapid loading system, with development of associated loading and logistics infrastructure being carried out in parallel with washery construction to ensure that evacuation facilities are fully operational at the time of commissioning. The Committee hope that the Ministry will continue

to scale up First Mile Connectivity projects and align them with the PM Gati Shakti Master Plan in a time-bound manner across all washeries while ensuring synchronisation of commissioning of washeries with dedicated rapid loading systems and evacuation infrastructure to further improve gains in dispatch performance, reduction in spillage and underloading charges.

(Recommendation No. 20)

21. GAINFUL UTILISATION OF WASHERY REJECTS

The Committee note that the Ministry has put in place a structured policy framework for scientific and gainful utilization of washery rejects, with priority accorded to power generation, industrial use and other productive applications. Washery rejects are to be utilised, as a first priority, for energy extraction at Thermal Power Plants/Captive Power Plants and other permissible end uses, and as a second priority, as replacement of construction materials, for reclamation of lands, brick making or other alternative gainful use, with dumping in mine voids or low-lying areas permitted only as a last resort. In this regard, the Committee note that during FY 2024-25, 10.17 Million Metric Tonnes (MMT) of washery rejects were gainfully utilised for energy extraction at thermal power plants against the permitted quantity of 12.22 MMT, reflecting substantial utilisation of rejects for productive purposes. While noting the efforts of the Ministry for providing productive utilization of washery rejects by creating value from waste, in line with the policy's priority hierarchy, the Committee emphasize that adoption of successful global practices in reject utilization may be explored so as to maximise resource efficiency, minimise waste generation and support the principles of circular economy in the coal sector.

(Recommendation No. 21)

22. MONITORING, ACCOUNTABILITY AND SUSTAINABLE MANAGEMENT OF WASHERY REJECTS

The Committee note that the volume of washery rejects is expected to increase with the planned expansion of coal beneficiation capacity and that a clear hierarchy for disposal and utilization has already been prescribed under the Washery Reject Policy, 2021. The Committee also note the efforts being made by coal companies for scientific disposal, including utilization for energy extraction, construction related applications and environmentally compliant mine void filling. The Committee, therefore, are of the view that the Ministry may explore a comprehensive monitoring and reporting framework for tracking generation, utilization and disposal of washery rejects across all washeries. The Committee also desire that periodic audits and digital tracking mechanisms may be explored to ensure uniform compliance with the policy framework.

(Recommendation No. 22)

23. WATER MANAGEMENT AND EFFLUENT TREATMENT IN WASHERIES

The Committee note that the water consumption norms mandated for new washeries are 0.085 cubic metre per tonne of raw coal for non-coking coal and 0.16 cubic metre per tonne of raw coal for coking coal, with mine water from nearby coal mines as the source of water supply, whereas it was not specified for existing washeries. The compliance with environmental clearance conditions is monitored through half yearly reports submitted to the State Pollution Control Boards. The Committee also note that all new coking coal washeries, are designed with water recycling systems, zero discharge arrangements and necessary environmental safeguards. Advanced beneficiation technologies are envisaged to facilitate efficient water use and ensure compliance with applicable environmental standards. The Committee while noting Ministry's emphasis on water recycling, utilization of mine water and adoption of zero discharge systems in new washeries, hope that the Ministry continue to promote best practices in water conservation and recycling across all washeries and develop a comprehensive framework for benchmarking water use efficiency and recycling performance. Specific targets and norms for water recycling, zero discharge may be formulated wherever required and steps may be taken to strengthen the monitoring mechanism for compliance with water consumption norms and effluent discharge standards across all washeries.

(Recommendation No. 23)

24. ENVIRONMENTAL AND FOREST CLEARANCES FOR COKING COAL MINES

The Committee note that the target of 140 MT coking coal production by FY 2030 is underpinned by a list of CIL coking coal mines at various stages of environmental and forest clearance, and that in several cases the mine plan is still under preparation with environmental clearance to be obtained by 2027-29. Given that mine development cycles typically take 7-10 years, the Committee observe that expediting environmental and forest clearances for these mines will help achieve the Ministry's broader objective of augmenting domestic coking coal production and reducing import dependence. The Committee, therefore recommend that the Ministry of Coal may coordinate with the Ministry of Environment, Forest and Climate Change, concerned State Governments and other authorities and facilitate timely resolution of environmental, forest and land related matters in a time bound manner. The Committee would like to be apprised of the progress of clearances and corrective measures undertaken in respect of such projects.

(Recommendation No. 24)

25. ROLE OF COAL CONTROLLER'S ORGANISATION IN COAL BENEFICIATION OVERSIGHT

The Committee note that the Coal Controller's Organisation (CCO), although being one

of the oldest institutions in the coal sector, presently has a limited role confined largely to facilitating disposal of washery rejects and verification of their calorific value. The Committee further note that CCO has no mandate relating to monitoring washery performance, capacity utilisation, coal quality compliance, environmental performance or utilisation of rejects, even though it conducts periodic inspections of washeries and serves as an important repository of sectoral information. The Committee also note that the revised Washery Reject Policy has introduced a self-certification framework aimed at improving ease of doing business while retaining reporting and sampling requirements. The Committee recommend that the Ministry examine the feasibility of strengthening the institutional mandate of CCO in a phased manner so that it can serve as a technical oversight and knowledge support agency for the coal beneficiation sector. Such a framework may contribute to greater transparency, improved resource utilisation and more informed policy making in the coal washing sector.

(Recommendation No. 25)

26. STRENGTHENING COAL CONTROLLER'S ORGANISATION

The Committee are apprised that the CCO presently has limited technical expertise in coal beneficiation, environmental compliance, data analytics and modern sampling systems in coal washing and reject management sector. The Committee, therefore, call upon the Ministry to accord priority for obtaining services of specialized technical experts for the CCO. The Committee are of the view that professionals with technical expertise in the CCO may help support the Ministry in achieving its objectives relating to coal beneficiation, quality assurance, maintaining comprehensive coal statistics and sustainable development of coal resources.

(Recommendation No. 26)

27. ROLE OF AGENCIES AND INTEGRATED DIGITAL GOVERNANCE

The Committee note that the oversight of coal washeries is presently distributed across multiple authorities, including the Ministry of Coal , the Coal Controller's Organisation (CCO), the Ministry of Environment, Forest and Climate Change and State Pollution Control Boards, district authorities, and coal companies. While each agency performs specific regulatory functions, the existing framework relies largely on separate reporting mechanisms, resulting in fragmented monitoring and limited real time visibility over critical operational parameters such as washery production, capacity utilisation, coal quality, water consumption, environmental compliance, and reject disposal. The Committee further note that the Ministry has acknowledged the need to strengthen digital governance and is exploring measures for improved data integration among regulators. The Committee, therefore desire that the Ministry of Coal, as a part of the whole-of-government approach, may develop, in coordination with all concerned stakeholders, a unified digital monitoring and data sharing platform for coal washeries that integrates operational, environmental, and regulatory information on a real-time basis. The Committee also wish to be apprised of the roadmap and timeline for implementation of such integrated digital governance architecture.

(Recommendation No. 27)

**NEW DELHI;
27 July, 2026
5 Sravana, 1948(Saka)**

**ANURAG SINGH THAKUR
Chairperson
Standing Committee on Coal,
Mines and Steel**

**MINUTES OF THE SEVENTH SITTING OF THE COMMITTEE ON COAL, MINES AND STEEL
(2025-26) HELD ON 8th DECEMBER, 2025**

The Committee sat on Monday, 8 December, 2025 from 1745 hrs. to 1845 hrs. in Committee Room No. '1', Parliament House Annexe Extension, New Delhi.

PRESENT

Shri Anurag Singh Thakur – In the Chair

Lok Sabha

2. Shri Sukhdeo Bhagat
3. Smt. Roopkumari Choudhary
4. Shri Vijay Kumar Hansdak
5. Smt. Kamlesh Jangde
6. Shri Govind Makthappa Karjol
7. Shri Bidyut Baran Mahato
8. Shri Harish Chandra Meena
9. Shri Ananta Nayak
10. Smt. Bharti Pardhi
11. Dr. Manna Lal Rawat
12. Dr. Rajkumar Sangwan
13. Shri Kali Charan Singh
14. Smt. Dhanorkar Pratibha Suresh

Rajya Sabha

15. Dr. Sarfraz Ahmad
16. Smt. Mahua Maji
17. Shri Deepak Prakash
18. Shri Aditya Prasad
19. Shri Devendra Pratap Singh
20. Shri Pradip Kumar Varma

Secretariat

- | | | |
|------------------------------|---|------------------|
| 1. Shri Harish Chandra Bist | - | Joint Secretary |
| 2. Smt. Reena Gopalakrishnan | - | Director |
| 3. Smt. Sunanda Chatterjee | - | Deputy Secretary |

Witnesses

Ministry of Coal

1. Shri Vikram Dev Dutt, Secretary
2. Shri Sanoj Kumar Jha, Additional Secretary
3. Shri Sanjeev Kumar Kassi, Joint Secretary
4. Shri N. Sajeesh Kumar, Joint Secretary
5. Shri Alok Kumar Singh, OSD

Coal PSUs

6. Shri Nilendu Kumar Singh, CMD, CCL
7. Shri Uday A. Kaole, CMD, MCL
8. Shri B. Sairam, CMD, NCL
9. Shri Sanjay Kumar Singh, Director Technical, BCCL

2. At the outset, the Chairperson welcomed the Secretary and other representatives of the Ministry of Coal and its Public Sector Undertakings (PSUs) to the sitting of the Committee convened to have a briefing by the representatives of the Ministry of Coal on the subject '*Infrastructure Development to Augment Washed Coal Production*'. The Chairperson then drew their attention to Direction 55(1) of the Directions by the Speaker, Lok Sabha regarding confidentiality of the proceedings. Thereafter, he directed the representatives to introduce themselves.

3. After customary introduction, the representatives of the Ministry of Coal gave a brief power point presentation before the Committee on the need to expand washed coal production to meet quality and efficiency requirements. He gave an overview on the policy framework including Mission Coking Coal, Washery Reject Policy, National Steel Policy and statutory clearances; challenges of high-ash Indian coal and global comparison; present status of washeries and Government's schemes to boost washed coal production.

4. The Ministry apprised the Committee of various initiatives being taken for increasing coking coal production to 140 MT by 2029–30, especially under the Mission Coking Coal and Washery Reject Policy. Some of them include expanding washing capacity across CIL and others, technology upgrades including stamp charging and dry washing and policy measures for linkage certainty and reject handling, as well as emerging technologies such as gasification and Pulverized Coal Injection (PCI) based steel making. Two models that provide for setting up washeries, i.e., Build-Own-Operate and Build-Operate-Maintain, were also briefed about.

5. The Committee, thereafter, sought further clarifications on the steps being taken by the Coal PSUs and subsidiaries for improving washed coal quality in the coal washeries in order to reduce emissions and logistics costs, completion timelines of various projects, the beneficiation capacity and yield of coal washing strategies being adopted in China, Indonesia and South Africa, handling and disposal of coal washery rejects. They also queried on the feasibility of coal mine void filling using washery rejects.

6. The representatives of both the Ministries replied to some of the queries raised by the Members. The Chairperson then directed them to furnish written replies to the queries raised by the

Members that remained unanswered during the Sitting of the Committee.

7. Hon'ble Chairperson thanked the Members of the Committee and Officials of the Ministry of Coal and Coal PSUs for their active participation in the Sitting of the Committee.

The Committee then adjourned.

(The witness then withdrew)

A verbatim record of the Sitting of the Committee has been kept separately.

**MINUTES OF THE SEVENTEENTH SITTING OF THE COMMITTEE ON COAL, MINES AND
STEEL (2025-26) HELD ON 2nd MARCH, 2026**

The Committee sat on Monday, 2 March, 2026 from 1100 hrs. to 1315 hrs. in Committee Room 'D', Parliament House Annexe, New Delhi.

PRESENT

Shri Anurag Singh Thakur – Chairperson

Lok Sabha

2. Shri Sukhdeo Bhagat
3. Shri Vijay Kumar Hansdak
4. Dr. Manna Lal Rawat
5. Dr. Rajkumar Sangwan
6. Shri Pratibha Suresh Dhanorkar
7. Shri Shatrughan Sinha

Rajya Sabha

8. Dr. Sarfraz Ahmad
9. Shri Deepak Prakash
10. Shri Devendra Pratap Singh

Secretariat

- | | | |
|------------------------------|---|------------------|
| 1. Shri Harish Chandra Bist | - | Joint Secretary |
| 2. Smt. Reena Gopalakrishnan | - | Director |
| 3. Smt. Sunanda Chatterjee | - | Deputy Secretary |

Witnesses

Ministry of Coal

1. Shri Sanoj Kumar Jha, Additional Secretary
2. Smt. Rupindar Brar, Additional Secretary
3. Shri N. Sajeesh Kumar, CCO

Coal PSUs

4. Shri B. Sairam, Chairman, Coal India Limited
5. Shri Achyut Ghattak, Director Technical (CIL)
6. Shri Nilendu Kumar Singh, CMD, CCL
7. Shri Uday A. Kaole, CMD, MCL
8. Shri Manoj Agarwal, CMD, BCCL
9. Shri Sanjay Kumar Singh, Director Technical, BCCL

2. At the outset, the Chairperson welcomed the Additional Secretary and other representatives of the Ministry of Coal and its Public Sector Undertakings (PSUs) to the sitting of the Committee convened to take oral evidence on the subject '*Infrastructure Development to Augment Washed Coal Production*'. The Chairperson then drew their attention to Direction 55(1) of the Directions by the Speaker, Lok Sabha regarding confidentiality of the proceedings. Thereafter, he directed the representatives to introduce themselves.

3. The Committee had earlier taken a briefing on this subject on 8th December, 2025 wherein various aspects of coal washing, beneficiation capacity, technology implementation and handling of washery rejects were discussed. At the present sitting, the Additional Secretary, Ministry of Coal gave a Power Point presentation in two parts—the first covering the policy framework and the second, which was presented by the CMD, Coal India Limited, covering the status of washeries, their installation and production capacity. The presentation covered the following aspects: need for coal washing , including the high ash content of Indian coking coal and global comparisons; policy framework comprising Mission Coking Coal, Coal-SETU Policy and the National Steel Policy; present status of coking and non-coking washeries including CIL's operational and planned washeries; handling and disposal of washery rejects; logistics improvements; and the overall roadmap for augmenting washed coal production by 2030.

4. During the course of the presentation, the Chairperson raised several observations, *inter-alia*, on: India's comparatively low export of coal vis-à-vis its production volume as compared to South Africa; the absence of any commercial dry washery in the country despite their successful operation in Indonesia and China; the inability to bring ash content of domestic coking coal, necessitating continued import of coking coal for blending; the low capacity utilisation of CIL's existing coking coal washeries; the ageing of washeries — and the consequent yield reduction; the role and statutory mandate of the Coal Controller's Organisation (CCO).

5. Thereafter, the Members sought further clarifications on, *inter-alia*, the following: the private sector and its compulsory use for thermal power; the environmental impact assessment of coal

washeries emissions after washing; generation of employment from new washeries; compliance with standards prescribed by the Ministry of Environment, Forest and Climate Change; the policy reversal in 2021 of the 2014 MoEF circular; water recycling and zero liquid discharge systems; and the need for a dedicated monitoring cell within the Ministry for coal washery oversight.

The Committee also directed the Ministry to furnish: a detailed note explaining the reasons for the withdrawal of the 2014 MoEF policy circular in 2021; a priority chart indicating where concerted efforts should be directed for augmenting washed coal production; specific data on ETP plants at all washery sites and the technology deployed for effluent treatment; and information on operational status of 63 private non-coking washeries.

6. The representatives of the Ministry of Coal and Coal India Limited replied to some of the queries raised by the Members. The Chairperson then directed them to furnish written replies within seven to ten days to the queries that remained unanswered during the Sitting of the Committee.

7. Hon'ble Chairperson thanked the Members of the Committee and Officials of the Ministry of Coal and Coal PSUs for their active participation in the Sitting of the Committee.

(The witnesses then withdrew.)

The Committee then adjourned.

A verbatim record of the Sitting of the Committee has been kept separately.

MINUTES OF THE TWENTY-SEVENTH SITTING OF THE STANDING COMMITTEE ON COAL, MINES AND STEEL (2025-26) HELD ON 27 JULY, 2026 FROM 1030 HRS TO 1045 HRS IN COMMITTEE ROOM 'B', PARLIAMENT HOUSE ANNEXE, NEW DELHI

PRESENT

Shri Anurag Singh Thakur

- **Chairperson**

Lok Sabha

2. Smt. Roopkumari Choudhary
3. Shri Vijay Kumar Hansdak
4. Smt. Kamlesh Jangde
5. Shri Ananta Nayak
6. Smt. Bharti Pardhi
7. Dr. Manna Lal Rawat
8. Dr. Rajkumar Sangwan

Rajya Sabha

9. Smt. Mahua Maji
10. Shri Aditya Prasad
11. Shri Pradip Kumar Varma
12. Dr. Sasmit Patra
13. Shri M. Nagaraja

SECRETARIAT

Shri Harish Chandra Bist

- Joint Secretary

Smt. Sunanda Chatterjee

- Deputy Secretary

2. At the outset, the Chairperson welcomed Shri M. Nagaraja, newly nominated Member from the Rajya Sabha, to the Standing Committee on Coal, Mines and Steel. Thereafter, the Chairperson welcomed the Members to the sitting of the Committee.
3. The Committee then considered and adopted the draft Report on the subject 'Infrastructure Development to Augment Washed Coal Production' without any amendments.
4. The Committee then authorized the Chairperson to finalise the Report and present the same to both the Houses of Parliament.

The Committee then adjourned.